







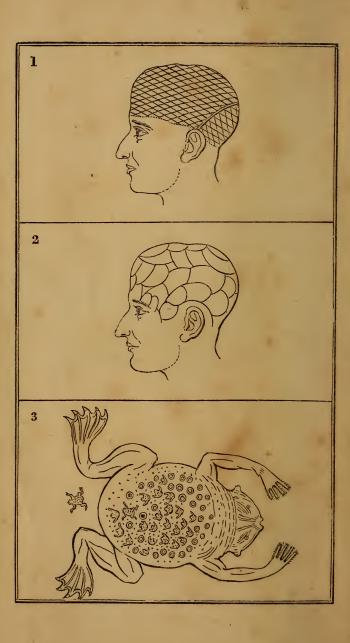




ENCEPHALOLOGY.







ENCEPHALOLOGY;

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A VERY BRIEF SKETCH

OF

DR. HIRNSCHADEL'S OLOGIES OF THE CRANION AND PHREN

PERFECTED BY THE

RATIO NALS.



LONDON:

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PREFACE.

THE Ologies of the CRANION and PHREN, claim the distinguished priority of being the last of all the Ologies that have endeavoured to extend the boundaries of the Empire of Science. It is not the intention of Dr. Hirnschädel's Encephalology, to disturb that claim; although, if it be not the last in point of origin, it is certainly the last in point of divulgation.

It may be pertinently asked—"Is
"it not a contradiction to entitle

"this Tract, Dr. Hirnschadel's Olo-" gies of the Cranion and Phren per-" fected, &c., if that learned Doctor "was neither the Author nor Pro-"prietor of those Ologies?"—I must grant, that there is ground for the question; but, in truth, this title has only been devised in order to apprize the scientific Reader at the first glance, that he will find all the numerous defects and errors of those two Ologies rectified and perfected in the "Ology of the Ence-"phalus and System of the Rationals," of which he has hitherto been kept in profound and unbecoming ignorance.

I shall not, here, inquire into the causes which have conspired to effect that privation; I shall content myself with informing him, that, in order to rescue him from an ignorance so injurious, I have with no small pains compressed into the present "Very Brief Sketch," from sundry publications in the German and Polish languages, a Summary of Dr. Hirnschädel's Biography, by the minute details of which alone his Science can be adequately or satisfactorily imparted.

For the separate use of those of my fair readers who do not wear blue stockings, I have subjoined a small Glossary of such terms as might occasion them embarrassment in prosecuting the thread of the scientific part of this History.

It now only remains for me to congratulate all my readers, on being at length put into possession of the only article that remained, to render quite complete the *Encyclopædias* of Edinburgh and Dr. Rees.

CONTENTS.

	Pa	ige
CHAP. I.	BIRTH AND INFANCY OF ERNST	
	HIRNSCHADEL	1
CHAP. II.	REMARKABLE PARTICULARS OF	
	HIS CHILDHOOD	13
CHAP. III.	HIS PUBERTY - ADOLESCENCE -	
	AND MANHOOD	29
CHAP. IV.	HE LEAVES THE UNIVERSITY OF	
	FRANKFORT HIS ELEMENTS OF	
	ENCEPHALOLOGY	4 0
CHAP. V.	HE REDUCES HIS PRINCIPLES TO	
	PRACTICE — HIS HEJIRA	67
CHAP. VI.	HE RETURNS TO SAXONY - DIS-	
	PLAYS HIS PRACTICE—PREPARES	
	TO DELIVER HIS LECTURES — BE-	
	COMES FIRST ACQUAINTED WITH	
	THE WORKS OF GALL AND SPURZ-	1
	HEIM-HIS OBSERVATIONS UPON	
	THEM	84
CHAP. VII.	HE PROCEEDS ON A JOURNEY OF EX-	
	PLORATION - PASSES THROUGH	
	TEIPSIG - ARRIVES AT PARIS	112

		٠	۰
V	١	1	1

CONTENTS.

CHAP. V	7III.	HE	ARR	IVES	INCO	GNITO	IN	LON-	
		D	ON .	• • • • •	• • • • • • •		••••		125
CHAP. I	x.	HE	PROC	EEDS	s TO S	COTLA	ND-	-AND	
		H	RELA	ND-	QUITS	DUBL	IN T	O RE-	
		T	URN	ном	E		• • • • •	••••	142
CHAP. X	۲.	HIS	JOU	RNEY	-ARI	RIVAL	AT I	HIRN-	
		SI	CITAT	TT.	ORITI	ARV			150

ENCEPHALOLOGY,

OR,

A VERY BRIEF SKETCH,

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CHAPTER I.

BIRTH AND INFANCY OF ERNST HIRNSCHADEL

ERNST HIRNSCHADEL was born in the Baronial Castle that crowns the little village of that name, situated in the forest of Sonnenburg in Upper Saxony, and not far from the confluence of the Warta and Oder. His father, Heinrich, was the forty-second Baron, in direct descent, of that most ancient Saxon house; his mother, Theresa Haupt, was the second daughter of a physician of

eminent celebrity at Gorlitz, also of an ancient family, and created a Baron of the Holy Roman Empire. Their family consisted of five children, three sons and two daughters; of whom, the eldest, ERNST, so called after his maternal grandfather, was born eleven months after their marriage. As it is my intention to exclude no details, however apparently trifling, from a biography whose interest will be found to commence almost with existence, I shall not conceal from the reader the assurances of the most respectable inhabitants of the village; that, on the night of Ernst's birth, his mother dreamed that her person suddenly emitted a stream of fire, which directed itself to the head of her husband, singeing off the hair, and encircling it with a coronet of flame; from whence it reverted to herself, and settled round her own head with such violence of scintillation and decrepitation, as to wake her from her sleep; when she found herself in the

first pains of child-birth. Her labour was neither long nor violent; it lasted only an hour and a half, and the infant Hirnschädel was ushered into life. He was tremulously expected, tenderly accepted, and eagerly examined, by his anxious father, and his numerous kinsfolk; who found him perfectly wellformed and healthy, and remarkable only for a total absence of hair, which never afterwards grew. His mother perceived a slight floridity diffused over the whole of his head, which she naturally connected in her mind with the dream that woke her to his birth; but which, for a long time afterwards, she never communicated to any one.

It was not until the third month that the event occurred, which marks in so remarkable a manner the precise point of time at which we must of necessity commence the history of our great future encephalologist. And here I must apprise the reader, that I shall be obliged to enter into a series of very minute particulars, which in ordinary nurseries and infancies would be as unimportant as they would be tedious and offensive, but in the case before us are very far otherwise: the reader must therefore fix a curb upon his fastidiousness, since they will be found productive of the highest interest, because pregnant with the most important and astonishing results. An author, who is to instruct his reader, must know best what is requisite to be stated preliminarily.

It happened, then, that at this critical period of his infancy, his parents carried him to Gorlitz, to shew him to his grandfather. Little Ernst had pertinaciously refused the breast, from the moment of his birth; not only that of his mother, a blooming young woman of twenty-two years of age, but that, also, of his nursing aunts, more distant female relatives, neighbours, and dependents, who all, in succession, presented to his lips their

exuberant stores. He therefore reduced his parents to the necessity of bringing him up (as it is called) by hand; and, for the first three months of his life, he was reared with a pap made of milk and wheaten bread, which he swallowed, but without ever testifying any satisfaction at the meal. Late in the day of their return home from Gorlitz, after a long and tedious journey, they chanced to halt for refreshment at the house of an intimate acquaintance; when their first care was to provide the usual food for their infant, whose violent and continued cries were unequivocal tokens how greatly his frame stood in need of a speedy recruitment. The nurse who attended him was sedulous in preparing the pap for her little charge; and was in the act of removing it from the fire, when, in the excess of her zeal, she overset the balance of the saucepan, and the whole meal was suddenly and irrecoverably precipitated into the flames.

The increasing cries of the child at this disastrous instant, plunged the distracted mother into a momentary despair, from which, however, she was quickly extricated by the force of maternal solicitude and sagacity; for, perceiving, amongst the articles just placed upon the table for her own meal, the divided head of a calf, and descrying in it a cavity filled with a soft white substance much resembling in colour and consistency the pap that had been lost, she quickly thrust the handle of a spoon into it, and presented it to the lips of the child. Never did astonishment and joy more powerfully seize the feelings of a parent! The babe, who, to the perpetual affliction of his mother, had always received his meals of bread and milk with more of distaste than indifference, advanced his little head with so strong and unexpected a spring at the taste of the new food, that, unless the maternal vigilance had exceeded the infantine vora-

city, the handle of the spoon must infallibly have penetrated far into the gullet; but, by a quick and expert reduction of the hand, she saved herself and the world from a loss incalculable and irreparable. Guided by the rule of this unlooked-for success, half of the brains were gradually administered, and swallowed; joy and animation were for the first time depicted on the countenance of the infant; and, after his exulting mother had wiped his mouth and kissed him, he fell into a sound sleep, which continued not only during the remainder of the journey, but till long after day-light the following morning.

When he opened his eyes, he lay for some time as if unconscious of being awake; a smile sat upon his features; and an unusual dew was diffused over his forehead, and over the rosy colouring of his cheeks; but, the cravings of a vacuous stomach soon produced a sharp consciousness of wakefulness, and his

reiterated cries as speedily brought his mother and his nurse to the opposite sides of his cradle. An attempt was judiciously made to quiet those cravings with the former diet, now that they were re-established at home; but, the attempt was totally fruitless; the pap was rejected with determination, and sputtered over the nurse; the cries redoubled; and a thorough conviction was received by both parents, that nature had at length unequivocally pointed out the food which was alone congenial either to the taste or the digestion of this extraordinary child. The mother, whose foresight had prompted her to reserve the remainder of the brains, now caused them to be heated on the fire; and they were devoured with the same avidity, and the same delight, as on the preceding day.

It was now determined to proceed with this new food, at least for a series of days, carefully watching its effects upon the system; with a resolution to desist from it the moment it should appear in the slightest degree to tend to the excitement of fever, or the derangement of the digestive organs. No lack of store was experienced; for, so highly was the father regarded, that calves' heads were continually sent in by the neighbouring gentry and opulent dependents, to supply the wants of the infant heir. After the experiment of a fortnight, they found no cause to repent of their proceeding; no febrile indication had occurred, and the child sensibly throve in health and beauty. Another fortnight elapsed, then a month, then another month; still, the nursery exhibited an unvarying progress of the same prosperity. Ernst increased in stature and in strength, and in every quality of endearment; and so rapid was the operation of his cerebral diet, that at the age of eight months he was able to walk alone from chair to chair.

The food, of which it was now ne-

cessary to maintain an increased supply, opened a new scene of interest to the affectionate father. It had been ascertained, that the taste and health of the child were not restricted to the brains of calves, but extended to those of all the animals, whether domestic or feræ naturæ, which supplied his own table; and even, that a manifest satisfaction was excited in the infant by the very variety. This discovery, added a singular delight to the pleasure with which the Baron indulged his dominant passion for the sports of the field. His forests abounded with every sort of game; stag, fallow-deer, roe-buck, wild-boar, hares, rabbits, squirrels, cogsde-bruyère, pheasants, partridges, quails, land-rail, plover, drossel (grive or thrush, including a great variety of small birds eaten indiscriminately under that covering name,) wild-duck, widgeon, teal, &c.; all of which, as chance directed, supplied in their turns a substitute for the maternal milk, which had long since disappeared.

It was now the noble Yager's great concern, (who had appointed himself sole purveyor of the nursery,) to kill his game in such a manner as should not impair the receptac'e of cerebral pap; and, whereas he had hitherto been celebrated in all the country round for never failing to hit his deer in the centre of that important part he was now fearful of injuring it; and, such was his expertness, that by changing the direction of his eye to an inferior point of his object, he as certainly struck it through the third vertebra of the neck, as he had hitherto done through the centre of the cranion. Ernst was now upwards of two years old, but with a progress in intelligence and action equal to that of an ordinary child of four years. The returns of his father from the chase were expected by him with animated eagerness; and never did little Esquimaux meet his parent dragging a seal or a walruss to his hut with more salient joy, than was exhibited by Ernst when he

beheld his father bring into his kitchen the head of a stag, a roe-buck, or a marcassin.

I must now, for a time, leave the article of his food, in order to notice a peculiarity respecting his person; of equal importance to the history of the science, in which he stands singly super-eminent.

The reader has been informed that he was born entirely without hair, which never afterwards grew; nay, without the smallest perceptible down. This total absence of a covering which appeared so necessary, since nature had supplied it so liberally in all other instances, was a source of considerable distress to his parents, and especially to his mother; not only because she viewed it as the loss of a great ornament, which would have rendered him without exception the most perfect child in Upper Saxony, but because she constantly apprehended the worst effects of cold upon so denuded a little head; and she therefore concluded, that she was bound to furnish, with augmented care, the covering which nature had left to her to supply. Accordingly, she inserted under his outer cap one of a warmer texture, in the nature of a wadded cotton skull-cap, which should discharge the functions of hair. But, here she experienced the same resistance from her infant, as when she first offered him the breast. Distress, declared either by piercing cries or a constant whining, accompanied always the imposition and attachment of the head-covering; nor did they ever entirely cease, except during the short period that the head was bared in dressing. As soon however as his hands acquired sufficient strength; which by an instinctive impulse they obtained at an astonishingly early age, even before his third month; he constantly tore off both coverings in the night, whilst his mother or his nurse was asleep; and he himself was always found asleep in the morning, with all the native nudity of his head. As it was not known how many hours of the night he had lain thus exposed, and as this practice had continued through a great variation of weather, his parents consulted together again what course they should pursue; and, as his health did not alter, and his tranquillity increased under the exposure which he so resolutely sought, they came to a new conclusion: that, as nature had furnished heads in general with a covering because they needed it, but had assigned none to Ernst, Ernst's peculiar system did not need the covering which she had withheld from it. Having thus experience, and an intelligible principle deducible from it, to guide and encourage them, they resolved to lay aside the caps, and to leave the mysterious infant in the undisturbed enjoyment of his naked head. And thus, with a constant supply of brains, of sorts, and with a head unembarrassed with any coverture, natural or artificial, Ernst advanced in a childhood of health and

happiness, the delight and darling of all his family.

An almost necessary consequence of the permanent nudity which he had so eagerly coveted, and so successfully obtained, was an instinctive application of his hands to the part, and a joy resulting from the tangible evidence of his freedom; from whence followed a pleasure accruing from the very tact of the smooth globular surface over which his fingers were perpetually travelling; so that whenever they were not otherwise called into action. they were habitually journeying over the convexity, until there was not a prominence or an indenture, however minute, with which he was not intimately familiarized; and this, long before he was of an age to be able to estimate the value of the knowledge of which he was now beginning, unconsciously, to amass the stores.

Ernst had now brothers and sisters in

quick succession; and it is remarkable that they were all born with a profusion of hair, as if nature had transferred to them the portion she had thought fit to refuse to Ernst. This phenomenon, appeared to affect Ernst with an offence as great as the pleasure which it afforded his parents. He seemed to have a horror of their hair; and never beheld them without carrying his hands to his own head, and with an expression of countenance significative of his joy in being exempted from a covering so desperately adhesive. He revolted at bringing his head near to theirs; and, when called upon to kiss them, would select some part of their bodies as remote as possible from the head. He shuddered at the necessity of occasionally sleeping with them; and then only would ask for a cap. He dreaded, lest in the night some hair should strike a root from his brother's head, as he had seen plants spring up in

one of his father's fields, from the roots of trees growing in the next. But, this was a distress to which his kind parents never subjected him, except in cases of the most absolute necessity.

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CHAPTER II.

REMARKABLE PARTICULARS OF HIS CHILDHOOD.

ERNST was now in his sixth year: from being fed by others, he had therefore long since arrived at the dignity of feeding himself; and accordingly, instead of receiving his food separated from its native receptacle, he had the happiness of being permitted to receive it in that receptacle, and to serve himself to its contents. A field of endless interest now began to reveal itself before him. He delighted in the exclusive property of his dish, and in the compact form in which it always lay before him. He admired the shape and curvature of the basin or cavity which contained it; the polish of its surface, the delicacy of its texture, and the uniform resemblance which those

of the same species always bore to each other. He was led on to compare those of the calf with those of the different kinds of deer; and these, with those of hares, rabbits, and squirrels; and these, again, with those of all the different birds which were brought to the table of his parents; for all heads were now considered as the rightful property of Ernst, who could rarely be induced to taste any portion of the flesh. From all the various heads whose contents he had consumed, he selected one or more of each kind, which he carefully washed and cleansed; and, having naturally a very orderly intelligence, he arranged them with great judgment upon a shelf in a small light closet, and in a line of gradation from the largest to the smallest. In this closet he would pass a considerable part of every day, surveying, scrutinizing, and measuring each; comparing the internal surfaces with the external; and thus acquiring an intimacy with the several conformations, and observing the minutest differences with the microscopic eye of his opening age. Whilst inspecting these, his fingers would travel to the corresponding parts of his own head; and, sitting before a looking-glass, he would compare his own cranion with the subject before him, at the same time directing another glass behind his head, which put him in complete ocular possession of the entire spheroid.

Hitherto, however, he had never seen his food until it was dressed, and presented at the table. He now felt a longing desire to inspect it before it underwent that change. He therefore sought, and readily obtained permission, to examine the heads before they were dressed; and he accordingly carried daily into his closet, early in the morning, those which were to be dressed for his dinner at noon. The accurate knowledge he had already acquired of the general form and structure of the cranion, enabled him easily to at-

tain his object. Being singularly expert for his years, and what is called very neat-fingered, and having remarked the natural division of the cranion by the sutures; he artfully inserted the point of a sharp-hooked nail-knife, following the line of the sutures, with more or less force according to the hardness of the subject. By this means he gently detached and raised a portion of the cranion, which shewed him the brain in its natural state and position. If there was only a single subject, he contented himself with this partial inspection; and restoring the portion of the bone, and firmly tying up the whole with a strong twine, he gave it back to the cook to prepare for his dinner. If the subjects were more than one, as was generally the case of the smaller game, both quadrupeds and birds, he would select one on which he might indulge an unlimited investigation. He would then remove successively every portion of the cranion, until the entire

contents stood exposed on its base to his admiring gaze. In the course of these disclosures he remarked two very obvious facts, the early impression of which upon his intellect, was afterwards of infinite importance to his science of Encephalology: the one was, that nature had made a positive separation between, what he then called, the hind and front brain; the other was, that although the internal surface of the skull exhibits a remarkable correspondence in form with the surface of the brain, yet the correspondence is by no means equally pronounced on the external surface; so that the external surface alone would be a very insufficient and deceptious rule for judging of the form concealed. These two facts he perceived, when he had just turned his seventh year; but, he perceived them as he perceived that horns grow on the head of a stag and not on his tail, and as equally manifest, and equally familiar.

Still, however, he had only inspected

the heads of such animals as were eaten for food; he now became desirous to extend the objects of his research. And he was the more earnest to follow this pursuit, from recollecting that his father was accustomed to speak to him, synonymously, of his gehirn and verstand - his brains and wits: and that he had often been told that he was as silly as a turkey, or a goose — as wise as an owl — and then again, as stupid as an owl, or an assas mad as a March hare—that he chattered like a magpie — repeated like a cuckoo was as playful as a kitten - and as frolicsome as a kid. He anxiously wished to inspect such of these animals as he had not examined; he therefore besought his father to procure him an owl, a magpie, and a cuckoo; and he obtained from the servants the heads of two kittens, from a litter which had just been drowned. All these, and various others, he examined very minutely in his closet, searching if he could discover in them any peculiarities of form, that might be connected with the distinguishing qualities which had been ascribed to himself after them. Whatever appeared to be such to him, he attentively noticed; at the same time searching for the corresponding peculiarities on his own cranion.

Whilst exercised in these investigations, and contemplating his head in the looking-glass, it suddenly occurred to him; that, although he was so fortunate as to be able to view it without the obstructions which concealed those of his brothers and sisters, yet still he was prevented from beholding it as nakedly as he did those of the animals in his little museum, by a casing that completely skreened it both from his view and from his touch. Engaged in irksome doubts and painful speculations of what that casing might conceal from him, his rambles led him accidentally one day into the churchyard or cemetery of the village, whilst a sexton was engaged in

digging a grave which he had nearly completed. Curiosity urged Ernst to the mound of earth which had been effodiated; and he watched the augmentation of the heap, as the spade threw up additional soil. In one of those casts, he observed something fall in a body, and roll to some distance from the heap. He followed it to ascertain what it might be, when, to his amazement, he saw a human skull, in a state of perfect preservation, lying exposed before him. It had sustained no fracture or injury, and the teeth were entire and sound. The reader may easily imagine, after the preceding history, what must have been the sensations of the young Ernst, when he thus saw for the first time, exposed to his deliberate gaze, a human skull freed from that cutaneous incasement which deprived him of the coveted inspection of his own. The first eagerness of examination was suddenly checked by an irresistible affection of self-interest; for,

after looking at the skull for some instants in silence, he hesitatingly asked the sexton - " Who it belonged to?" -" Some young man," answered the sexton, "who must have died eighty or a hundred years ago." This reply did not at all bear upon the point at which the question was aimed; after another short hesitation, therefore, Ernst again inquired - " But who does it belong to now?"-" Belong to?" rejoined the sexton, smiling and resting on his spade; "Who do you suppose it belongs to? - you, if you like it." Ernst, who at the first glance had viewed it both as an inestimable treasure and a perquisitorial property of the sexton, could hardly believe the words that reached his ears: he therefore asked him - " What he had said?" and, on the same words being repeated - exclaiming, " Thank you! O thank you!" - he, without the loss of a moment, seized the skull, and began to clear it of the earth that adhered to it, or that had become lodged within its

cavities; and spreading his handkerchief on the grass, and placing the skull in its centre, he gathered the four corners over it; and, reiterating his thanks to the amused sexton, he set off with an accelerated pace to his little museum. His first step was to convey his new property to the pump, under the action of which he kept it exercised until he had cleansed it from every particle of earth or soilment; and wiping it dry with the utmost care, he triumphantly deposited it upon his shelf above the skull of the calf; assigning to it the first place in his little series of crania.

The friendship thus commenced with the sexton, was not suffered by Ernst to die away; he repaired to him, whenever he saw him busied in his functions; and asked him so many questions of an unusual and intelligent nature, as to induce the sexton to offer to shew him the charnel or bone-house, in which detached bones thrown up in grave-digging were

commonly deposited. The offer was accepted with rapture; and the joy experienced by Ernst when that world of wonders was first disclosed to his sight, can only be compared with that of Columbus, when he first beheld the shores of America in his view, and already within his reach. He flew at every skull in succession; turned them over and over: thrust in his fingers to feel their interior; compared several of them together; and so astonished and interested the sexton, that he permitted him to purloin two, the one that of a boy of his own age, the other that of a young child: to the other bones. he paid little or no attention.

CHAPTER III.

HIS PUBERTY, ADOLESCENCE, AND MANHOOD.

HE had now an important accession to his collection; and his affection for his closet daily increased as his ideas became better arranged and better combined. In this beloved retreat, which commanded, from its eminence, a wide extent of forest scenery permeated by the course of the Oder, many and many an hour was rapturously passed; and many observations were made, of which he then but little knew the importance, but which formed and established an habit of discernment wholly unattainable by any who commence their researches in encephalology at a later period of life, and under circumstances less extraordinary and less propitious.

It has been unnecessary to interrupt the narrative, by pointing out to the reader the particular affection that subsisted between Ernst and his maternal grandfather. The faculty, in which Baron Haupt had raised himself to such distinction, naturally caused him to contemplate his little grandson with enthusiastic fondness; and the interest which he always took in his pursuits, and the information which he was able to impart to him, made Ernst look forwards to his occasional visits, at Hirnschädel, as the consummation of his happiness.

But these happy days were now to be interrupted. The age that Ernst had attained, rendered it necessary that he should begin to experience the restraints of a school education. He had learned reading and writing from his careful mother, and had been initiated into the first rudiments of Latin by the respected pastor of his village; he was now, for the first time, to be separated from his

parents, his brothers and sisters, his home, and his dearly beloved museum. His feelings were tender and affectionate. Though making every manly effort to suppress those feelings, a starting tear would betray the insincerity of the smile which he forced upon his countenance in the presence of the rational objects of his attachment; but, when he took his last leave, alone, of his little closet; his intimacy with which had been coeval with the earliest records of his memory, and in the seclusion of which he had passed so many hours of the purest and most exquisite mental enjoyment that his early age could taste; there was something in the aspect of his favourite objects arranged silently before him, and as it were, mutely taking their leave of him, that overpowered his feelings, and he burst into tears. He had permission to lock the door himself, and to carry away the key with him; and he received an assurance that the closet should

not be entered by any one, until he returned at the vacation to open it to himself.

Ernst was between eight and nine years of age, when his father placed him in a seminary at Kustrin; with the ulterior intention, that at a future period of his growth, he should be entered of the celebrated university of Frankfort upon Oder. He soon fell into all the modes and habits of the school; and equally acquired the love of his teachers by his intelligence, quickness, and docility, as of his schoolfellows by his liveliness, openness, and unvarying good temper. The latter were peculiarly fond of him, and took a great delight in calling him "Kleine Calvinus," especially when they found that he disliked it extremely, being bred a staunch Lutheran. Accustomed to his own person, and the more so from his habit of continually contemplating it in a looking-glass, he was perfectly insensible to the singular appearance of a

boy, only nine years old, with the baldness of fourscore and ten, and who never wore any covering, either in the house or in the field. In vain did they endeavour to convince him how much he would be improved by wearing a wig formed to resemble a natural head of hair; in vain did they appeal to the demonstration of a looking-glass; the arguments of neither could reach his organ of conviction. Once they persuaded him so try it, and shewed him the improvement in the glass; but he could only perceive an hideous disfigurement of his person. They therefore ceased to importune him, and gradually became accustomed to his singularity; and it must be acknowledged, that, saving the extraordinary badge by which Science had

" mark'd him for her own,"

he was by far the handsomest and finest boy in the whole school.

Six years passed away, during which

he was distinguished by his progress in learning, notwithstanding his constant prosecution of his first and favourite pursuits. His vacations carried him back to the scenes of his infant years, which were always revisited with delight; but his mind had increased in experience and in vigour, and his former objects were pursued with wider combinations of knowledge, and more elevated views. His collection was considerably augmented; was arranged with more enlightened apprehension of principles; and, when quitted at the calls of duty, was relinquished without the acute sensibility which had signalized his first separation from it. His thoughts had extended themselves from lifeless to living subjects, and he curiously sought the relations between the two. From diversity of conformation his mind had travelled to diversity of character and disposition; and he had accurately noted each. The specimens of his cabinet which he had

taken with him to Kustrin, had inspired a persuasion that he was no ordinary boy; and his acute reasonings from forms to natures, and reversely, from natures to forms, created a consideration for him superior to that which is usually conferred among juvenile contemporaries. His schoolfellows readily permitted him to examine and compare their crania, with a mixed temper of mirth and respect; and, as he was a personal friend of each, he thoroughly knew all their natures and dispositions: but he was used repeatedly to say, that if he had not been practised and familiarized from his earliest infancy in inspecting the internal surfaces of crania, so as to have acquired an almost intuitive perception of their relations to the external, he could never have derived any knowledge at all of the form of the brain, from the imperfect and almost illegible indications of the latter. But this knowledge, (which he denominated Craniosophy,) he would playfully

add, he drew in with his "mother's milk;" for so he denominated brains.

Six years, therefore, having been well employed at Kustrin, his father removed him, and placed him in the university of Frankfort upon Oder. As it was necessary that he should now determine his future line of study, he did not hesitate, notwithstanding his prospective inheritance of the ancient honours and property of the Hirnschädels, in deciding on that of medicine: to which science he was partly inclined from his fond attachment to his maternal grandfather, but principally because it was most congenial to the direction of his own thoughts, and opened to him the prospect of accomplishing the great ends which he had already in his secret contemplation. But, his view of that faculty combined whatever has relation to man, or can affect his compound existence; and more especially that part of man in which all those relations are concentred; namely,

the head. This was a subject, which exalted him with enthusiasm! He was convinced, that in the wonders of that structure, diversities were reduced into unity, and complexities into simplicity; as all the imaginable radii of a circle unite and centre in one common and indivisible point. He therefore applied himself no less ardently to the study of the ancient languages, of metaphysics, ethics, and jurisprudence, than to that of mathematics, anatomy, and every branch of medical science and natural philosophy; but, anatomy, positive and comparative, especially that of the head, was the study which possessed the first place in his affections. Nevertheless, he attended with equal assiduity the Professors in every department of science and learning; and, with such extraordinary success, that at the age of twentyone years he was regarded as a sort of ambulatory Cyclopædia, no less by his seniors than by his own contemporaries.

In all those various studies, the originality and independence of his mind kept him above the servile adoption of any of the current theories, however specious or alluring; he aimed at a point of truth far above the mark to which all those theories tend; and, in receiving the instruction of others, he was engaged in maturing the science of which he was destined by nature to become at once the Author and the Perfecter. It is a remarkable circumstance, that in proportion as he succeeded in accomplishing any great object, his disinclination to a fleshy diet diminished; yet he always retained his original partiality to the " maternal milk," to which he owed all his eminence.

At the age of twenty-three he took his degree of M. D. The subject which he selected for his thesis was, "The se-"parate and distinct relations of the cere-"brum and cerebellum, and of their respective sub-ratios, to the dominant Ratio, or

"active principle of the human mind." His management of this very difficult question, in an elegance of Latinity wholly new to the medical schools of Germany, was received with universal admiration and unbounded applause; and the whole of his auditory derived a profound conviction, from the impossibility they experienced in endeavouring to apprehend and follow his argument, that his genius was teeming with some vast truth of infinite concernment, which would one day create an Epocha in Science.

CHAPTER IV.

HE LEAVES THE UNIVERSITY OF FRANK-FORT — HIS ELEMENTS OF ENCEPHA-LOLOGY.

Having thus reached the goal, to attain which he had been originally called away from the scenes of his earliest interests; he contemplated with delight his return to them, enriched with the stores of knowledge which he had accumulated during the fourteen years of his laborious studies. He now languished for a repose, in which he could leisurely digest all these, and turn them to their account. The allurements of a populous city, the lustre of celebrity, the urgency of friends and admirers, were impotent against the attraction which fixed the determination of his mind: he took his final leave of Frankfort with feelings of attachment more than of

regret, and re-established himself fixedly in the seclusion of his native castle.

In the preceding year he had sustained the loss of his affectionate father; and the family mansion, with all its hereditary advantages, had now devolved upon him. In establishing himself here, he had to adapt the ancient dwelling to the reception of an extensive library which he had gradually formed; of a large and valuable collection of anatomical preparations, chiefly of crania and encephali; and of a well-appointed apparatus for every branch of experimental philosophy. In making a new distribution of his apartments for these purposes, he carefully included in his plan the little retreat of his boyish years, in which he would make no alteration; preserving it, even with its mimic museum. He smiled, when he recollected the importance he had once attached to the objects which it contained; but, by reviving the feelings which he had there enjoyed, it became singularly endeared

to him, and he reserved it as a sort of adytum, or penetrale, in which his mind could most effectually retire into itself from the importunities and distractions of the external world.

In the leisure and independence of this ample retirement he passed nearly three years, constantly engaged in arranging and digesting the materials from which he was to deduce the great scheme of Encephalology which he had so long projected; which engrossed all his thoughts; and which, as his auditory at Frankfort had truly presaged, would form a new epocha in science. At the expiration of that period he was nearly prepared to enounce his principles, and to unfold and display the practical benefits to which they necessarily conduct. Of these, I shall now give a brief-but, I must apprize the reader, a very general and inadequateaccount; yet, I am persuaded it will be such as will dispose him to look forward with impatience to the Doctor's great

posthumous work, to be printed in 5 vols. 4to., entitled Corpus Encephalologia. And here I must drop the familiar name of Ernst; and the reader must be prepared, in the sequel of the history, to recognize the object of our past interest in his new and dignified character of Doctor Hirnschadel, by which title he always desired to be distinguished.

The fundamental points which Dr. Hirnschädel considered to be perfectly established by extensive induction from secure and certain premises, are the eleven following:—

- 1. That, the encephalus, or brain, is the primary material instrument by which the mind carries on intercourse with the external world, through the mediation of the senses.
- 2. That, the brain is an aggregate of parts, each of which parts has its special and determinate function.
- 3. That, as the brain in its totality is covered by the entire cranion, so each of

its functionary parts is covered by its own particular portion of the cranion.

- 4. That, the active principle of each functionary part determines, by its growth and development in *utero* and in first infancy, the *figure* and *size* of its own portion of the cranion constituting its *nidus*.
- 5. That, in consequence of this determination of figure and size, the internal surface of the cranion corresponds exactly with the external surface of the brain. But,
- 6. That the external surface of the cranion does not therefore correspond exactly with its internal surface: and in numberless instances does not, to common inspection, correspond with it at all.
- 7. That the size of the internal parts is, therefore, not discoverable by simple external inspection; and can only be ascertained by *induction* from a laborious, long-continued, and accurate examination and comparison of many thousand internal and external surfaces of crania, com-

menced in infancy and continued without interruption into manhood; and by an habit originating in the keenness of sight and delicacy of touch of that incipient age.

- 8. That, if the size of the nidus pertaining to any given functionary is too much confined, i. e. too small, for the development of the power which the functionary strives to unfold, constraint on its faculty of development must necessarily result from the stubborn and unyielding texture of the cranion.
- 9. By necessary consequence, that the enlargement of size must favour the development and manifestation of each functionary power: and reversely,
- 10. That reduction of size must equally check and repress the action of each power. And therefore,
- 11. That the great objects of Encephalology are, 1, to ascertain the seats and nidi of the functionary powers of the encephalus; and 2, to enlarge or reduce

the *nidi* of the cranion, in such manner and by such rule as shall most effectually promote individual happiness, the welfare and security of separate societies, and the universal benefit of mankind.

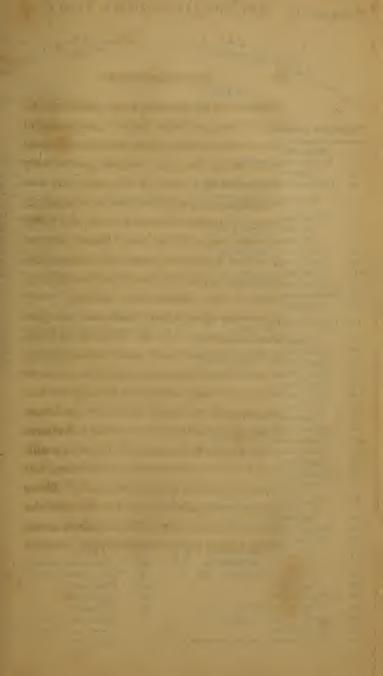
Such were the vast results, towards which we have seen the intellect of Dr. Hirnschädel gradually led, as it were by the hand of some tutelary genius, even from his cradle; and to produce which, the most extraordinary circumstances combined and continued, even from the the third month of his infancy.

The different functionary powers or organs of the brain which Dr. Hirnschädel found to be established, were in number 68; all these he denominated collectively, ratios, or each, singly, subratio. By this symmetrical scheme of nomenclature, all the several sub-ratios constantly preserved and manifested their cognation to, and dependence on, the supreme Ratio. He found that they were all disposed in a reticular form in each

hemisphere, dexter and sinister, of the encephalus; divided only by the encephalic meridian, drawn from the occipital to the frontal poll, to which line they equally tend and equally adhere: by which admirable economical arrangement no space is lost in the encephalus, every sub-ratio occupying an equal rhombic area, conterminal with four other ratios or rational rhombs. He did not pretend to have ascertained the functions of all of these; and therefore, in delineating a net-work over a cranion, he only noted those which he had established, modestly inscribing on the remainder - terra incognita. He perfectly ascertained and established, that the Ratio Proper, or Dominant Ratio, was seated in some unknown point immediately under the concame-ratio of the cranion.

The origin of the nomenclature which he employed, deserves to be historically recorded. Dr. Hirnschädel was a great reader of Latin; when, therefore, he had

read through all the Latin authors, he read through all the Latin translations of the Greek; although he had already read them in the original. Whilst prosecuting this unusual course of literature, he was forcibly struck with two oracular passages which presented themselves in the Latin translations of Plato and Demosthenes; in which passages he conceived the translators presented the point of the authors' minds with considerably greater force than they themselves had done in their own language. In the Rhetoric of Plato he thus read-"quod caret ratione ars non " est—that which is without a ratio is not " an art:" and, in the 1st Olynth. of Demosthenes, he read thus - " multitudo " rationum prudentes expedit, hebetiores " intricat et inopes consilii facit-a multi-" tude of ratios disembroils the wise, but " perplexes and stupifies the dull." These passages brought to his recollection the dicta of Cicero in his Tusc. "munus animi " est ratione uti—it is the proper office of



10]	ace page 49.]	
	CONCAME_RATIO	sive
	RATIO	Cerebrum.,
	CAME RAIT	verebrum.) N.
	NO NO (Foceby	
	CO	
	RATIO,	
/		ncephalis, sive Cereba
	*POSITIVA ET DOMINANS	(Parencephalis, sive Cerebelle
(/B/F	144 3	
IVI	ultitudo rationum."	*IR-RATIO,
-	Respi-ratio.	sive
1	Vocife-ratio.(tune 28)	RATIO*NEGATIVA.
2	*Vo-ratio.	, RATTO REGATIVA,
3 4	Deside-ratio.(covetiveness 8)	Igno-ratio. 50
4		Vib-ratio 49 Er-ratio. 51
5		Exagge-ratio. 52
6	Illust-ratio.	Asseve-ratio. 53
7		Vitupe-ratio. 54
8	O-ratio.(language 29) Ite-ratio.(imitation 33)	Deli-ratio. 55
		Obi-ratio. 56
9 10	Ope-ratio.(causation 31) Arbit-ratio.	Exaspi-ratio. 57
11		Obscu-ratio. 58
	Admi-ratio (self-love 10)	Exsec-ratio. 59
12 13	Vene-ratio.(veneration 14)	Frust-ratio. 60
	Obtempe-ratio.	Degene-ratio. 61
14	Mig-ratio.	(5 combatineness) Bellige-ratio. 62
15	Conside-ratio. { conscientiousness 16 }	(6 destructiveness) Lace-ratio. 63
16	Cu natio (captionen en 18)	Desperatio. 64
16 17	Cu-ratio.(cautiousness 12)	Conspi-ratio. 65
18	Accu-ratio.(wit 32)	*Aufe-ratio. 66
19	Compa-ratio.(comparison 30)	Augu-ratio. 67
20	*Explo-ratio. Decla-ratio.	11454-741102 07
21	Matu-ratio.	
22	Libe-ratio.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
23	Figu-ratio.(form 20)	
24	Mensu-ratio.(size—space 21, 24)	
25	Nume-ratio.(number 27)	
26	Ponde-ratio.(weight 22)	
27	Integ-ratio.	
28	*Restau-ratio.	
29	Supe-ratio,	
	(amatineness 1)	
30	Gene-ratio. amatteeness philogenitiveness 2	
31	*Spe-ratio.(hope 15)	
32	Perseve-ratio.	
33	Fulgu-ratio.	
	(canatimanasa 0)	42 Lib-ratio.
34	Sepa-ratio. individuality 19	43 Colo-ratio.(colour 23)
35	Celeb-ratio.(approbation 11)	44 *Tempo-ratio.(time 26)
36	Aspi-ratio.	45 Penet-ratio.
37	Administ-ratio.	46 Appa-ratio.
38	*Vigo-ratio.(firmness 18)	47 Susur-ratio.
39	Complo-ratio. (benevolence 13)	48 Mode-ratio.(order 25)
40	*Memo-rativ.	Terra Incog.]
41	*Agge-ratio.(constructiveness 7)	68 Expi-ratio.
	· · · · · · · · · · · · · · · · · · ·	

"the mind, to make use of the ratio." And again, "bene adhibita ratio cernit "quod optimum est, neglecta multis impli-"catur erroribus-a ratio well applied, dis-"cerns what is best; but, neglected, is im-"plicated in many errors." He therefore determined, in the ordination of his new art, to "make use of the ratio," and to disembroil all those who may aspire to the denomination of wise, by employing the "multitude of ratios;" and he thus digested his Table (see Table), according to the hint given him by Cæsar; "in Ta-" bulis nominatim ratio confecta erat — " each ratio was arranged in Tables, by "name:" but, as he was extremely accurate, he marked all those ratios with an asterisk which he did not discover among the writers of the Augustan age.

It would be unnecessary, and it would indeed be impossible, to attempt to give, in this "Very Brief Sketch," a full exposition of all and each of these numerous ratios; I shall therefore only notice a few

of them taken at random, as examples: upon the principle—"verbum sapienti"—a word to the wise: the hebetiores, or dull, must wait until the eminent Professors to whom Dr. Hirnschädel's heirs have addressed themselves, shall have executed the arduous task of giving his great work to the world; with an elementary synopsis prefixed for their separate use and benefit.

The sub-ratio which Dr. Hirnschädel found to be the first developed of all, is the org. respi-ratio, which receives an immediate manifestation from the first irruption of the external air, at the moment of birth, into the pulmonic follis, or lungs; and is as immediately followed by the development of the orgg. vocife-ratio and *voratio. The last which declares itself, is the expi-ratio; sympathetically, but only momentarily, manifested in the last action of the respi-ratio.

Our encephalologist found, that the intermediate ratios have both a moral and a physical operation. Thus the orgg.

illust-ratio and obscu-ratio act morally, when the mind strives to attain to, or to avoid, the evidence of truth, &c. In their physical operation they cause wakefulness, or sleep; and, in all persons, sound in health of body and mind, and comfortable in their circumstances, they act in unvarying alternation, like Castor and Pollux; the one being constantly in exercise during the day, the other during the night. These two organs, or ratios, are seated in the last two rhombs traversed by the optic nerves.

The org. vib-ratio, is a very important organ. It is, in a manner, pendulous between the Ratio and *Ir-ratio, and has a vacillatory influence on each. When acting morbidly and in excess, and not resisted or subdued by any salutary ratio, as the lib-ratio, its moral operation is perpetual hesitation; endless indecision; immediate conviction by every opposite argument, &c. It is the cause of the διχα ενθα και ενθα, the "huc atque illuc," the mental backward and forward, so well understood

by the ancients; and so beautifully compared by Homer to a nightingale in the dark, perpetually hopping this way and that upon a branch:—

ώς — χλως ηϊς απδων, ήτε θαμα τρωπωσα ώς και εμοι ΔΙΧΑ θυμος οςωρεται ΕΝΘΑ ΚΑΙ ΕΝΘΑ.*

The English Milton poetically alludes to the same effect, when he says:—

"As when two pollar winds, blowing adverse Upon the cranion, see together drive, &c."†
In its morbid and physical operation, this ratio produces various nervous motions and twitches, as shaking of the head or leg, twiddling with the fingers, playing the devil's tattoo, and St. Vitus's dance.

^{*} Od. xix. 524.

⁺ Dr. Hirnschädel, in his imperfect knowledge of English, has quoted erroneously, under an impression that the poet was here alluding to his own occipital and frontal polls; it is properly,

[&]quot;As when two polar winds, blowing adverse Upon the Cronean sea, together drive, &c."

The org. ite-ratio, in its moral operation, is the origin of all habit, whether good or bad; by which, a facility of iterating, or repeating the same actions, is acquired and confirmed. In its compound operation, it causes the telling the same stories, and asking the same questions, over and over again; repeating people's last words; &c. &c. Dr. Hirnschädel found this organ remarkably developed in the cuckoo.

The org. gene-ratio, Dr. Hirnschädel covertly described in the poetical phrase-ology of Lucretius,

"Æneadum Genetrix! hominum divûmque voluptas!"
"Iulian Mother! Joy of men and gods!"

but, he annexed to it this exposition from the great Mœonian bard:

Αλλα συ γ' ἱμεροεντα μετεςχεο εςγα ΓΑΜΟΙΟ.
"Be thine, to bless the works of WEDDED LOVE!"

He conceived this organ, in man, to unite all the delights both of connubial and parental love, regarding them to be

inseparably connected, as cause and consequent: upon this *ratio*, however, he was memorably brief and reserved.

He moreover discovered the existence of very powerful attractive and repulsive action between all the *sub-ratios*; so that they are susceptible of various modifications, combinations, and disunions of their powers, either by the exercise of the *org. arbit-ratio*, or merely by the mechanical and fortuitous action of the *vib-ratio*.

Thus, the org.vocife-ratio, (which Horace calls "et vox et ratio,") when it attracts the orgg. nume-ratio and mensu-ratio, becomes the organ of tune; yet it retains the same name in all cases, because all tune was vocal until instrumental tune was invented by Jubal.

The org. figu-ratio, or of form, receives the minute impressions of the forms of visible objects; and, when it attracts the orgg. ite-ratio, colo-ratio, and ope-ratio, it produces the genius of painting, &c. This organ, has not been in

memorable development since the time of Alexander the Great; and little merits our consideration, in the ages that have succeeded. It was in its perfection, at that period, in the cranion of Apelles; who painted a horse so exquisitely, that several mares led up to it immediately neighed. So says Pliny; * but Valerius Maximus says, it was a horse that neighed at a painted mare; and adds, that Apelles also painted a bitch at which all the dogs barked+. When did Wouvermans ever set a horse neighing, or Snyders a dog barking? "Apelles also painted things "which cannot be painted, as thunder " and lightning-pinxit et quæ pingi non " possunt, tonitrua, fulgetraque t." This ratio, therefore, may be contemplated as under the baneful influence of the org. degene-ratio from his time.

The distributed germination of these and all the other ratios in their several

^{*} Lib. xxxv. c. 17. † Lib. viii. c. 11.

[†] PLINY, ubi supra.

rhombs, bears a remarkable analogy to the peculiar dorsal fetations of the Pipa, or Bufo of Surinam; which may be regarded as a fortunate illustration, provided by nature, of the multitudinous conceptions and parturitions of the encephalic mass: the nascent bufos, admirably representing the germinating ratios. (See Plate, fig. 3.)

Having thus, by ascertaining the seats and laws of the ratios, obtained the first desideratum of encephalology, viz. the secure establishment of principles, Dr. Hirnschädel proceeded to the second, viz. the reducing his principles into beneficial and efficient practice. He had now to engage in the arduous task of discovering the means of enlarging or reducing, as the case might require, the nidi of the cranion in which the several functionary parts of the brain exercise their energies. This was, indeed, a pursuit of no common difficulty. It was evident that those means must act, in the first instance, on

the solid substance of the cranion; and, that unless the cranion could be made to yield, neither enlargement nor reduction of the nidus could be produced; and consequently, no effect could be extended to the organ beneath, and encephalology must be frustrated of all its beneficent results. To clear his ideas upon this point, he resorted to a very simple experiment. He took two beans, which he placed in two separate flower-pots, filling them with earth till within an inch of the rim. Over one of these he placed an empty flower-pot, reversed; and upon the other a tile: these he set in pans supplied with water. At the expiration of twenty days he removed the coverings, and great was the difference of the phenomena which presented themselves to his view! In the first pot, the power of manifesting development had experienced no obstruction; the young bean ascended perpendicularly and vigorously, unfolding its proper form and proportions. In the

second pot, the bean had speedily reached the tile; but, meeting with a resistance which its tender efforts were unable to overcome, it exhibited all the melancholy consequences. Its native power of development, was equal to that of the other; but, deplorable was the effect of that power fruitlessly exerted against the unconquerable resistance of the tile. Instead of being perpendicular, vigorous, and green, it was horizontally tortuous, sickly, and white. The conclusion, by analogy, with respect to the germination of the organ and the resistance of the cranion, was direct and demonstrative. By giving elevation, therefore, to the encephalic nidus, he could invigorate the growth of its internal functionary, and increase its expansion; on the other hand, by aiding the natural resistance of the cranion, he could enfeeble or entirely destroy the functionary.

During these meditations, the extensive combination of his genius caused

him to make two observations, resulting from the experiment of the bean.

- 1. He felt considerable indignation against all those empirics who, without discrimination of causes and circumstances, regard universally as disease in the cranion that affection which is denominated mollities; by which, the substance and texture of the skull is reduced from its obduracy and obstinacy, into a condition of genial and almost uterine compliancy. He wished that every cranion could be so far reduced towards a state of regeneration. He viewed it as a special favour of nature, by which she seemed to say - " now is your time "-now is your opportunity-educe the "organ you wish, and reduce and indurate "the rest." Such favourable cases, however, are of the most rare occurrence, and cannot be artificially produced.
- 2. He equally condemned that undistinguishing view taken by the same daring practitioners, of *chronical cephalalgia*, or

headach; and the course of treatment consequently pursued by them, of striving at once to allay the pain by extinguishing the cause. He found that, in almost all cases, chronical cephalalgia is only nature's indication of the germination of some ratio of the brain; and the pain is the necessary consequence of the resistance of the roof and sides of the nidus. No one, therefore, can tell what injury may be done, and must have been done, to many minds, and therefore to society, by a practice tending to check and frustrate the natural germination of one or more of its organs, and thus blindly to render abortive

"Or wak'd to ecstasy the living lyre!"

This fact he considered to be brought to demonstration by the bean and tile; and, if vegetables have sense, (and no one has the testimony of experience to prove that

[&]quot;Some heart once pregnant with celestial fire;
"Hands that the rod of empire might have sway'd,"

they have not,) the bean must have endured a very acute sense of pain at its apex, analogous to cephalalgia. The pain of cephalalgia was therefore of the same nature as the pain in teething; and proceeds from an inflammatory struggle to overcome a resistance. The most fortunate hypothetical concurrence of circumstances would be, chronical cephalalgia, followed by mollities; because, we should then have indication of germination succeeded by the means of immediately taking advantage of it: his encephalic thermometer being able to determine the centre of the rhomb in which the ratio was pushing. We should in that case have only to reserve that particular portion of the cranion; and to reindurate all the rest, by constant and copious impregnations of phosphate of lime. Such fortunate circumstances, however, never or rarely occur, and cannot, therefore, be embraced in a system of practice. And he consoled himself with

the reflection, that, after all, the great benefit they would confer would be only a saving of time; for that, when we had once found the means of reducing and educing a nidus in the ordinary obduracy of the cranion, though the end might be more rapidly attained by the natural process, it would not be more effectually secured than by an artificial one demanding time and patience. He therefore dismissed all thoughts of operating by favour of the mollities; and he disposed his mind to pursue the course which only required a larger expenditure of patience and of time. But, how were those means to be found?

To discover a reducing process, was not so difficult. The experiment of the tile, appeared to him an oracular notification; that proportionate compressure must necessarily, and in a similar manner, frustrate the efforts of the functionary, and cause it, in a similar manner, to dwindle and die away. But, he saw

nothing oracular in the inverted flowerpot to guide or instruct his genius, in the means of affording a similar enlargement of space for the development of any ratio which he might wish to educe. Whilst meditating on this arduous point, he would often strike his forehead; and, rising from his seat, and pacing his chamber, would exclaim to himself with strong emotion - " hic labor! -- hoc opus!" At length, one day, it suddenly flashed into his recollection, that when he was a boy he frequently amused himself with putting a piece of lighted paper into a wine-glass, and immediately closing the orifice with the broad palm of his hand; in which puerile amusement, not only the glass adhered to the palm, but the surface of the palm rose convexly in the vacuum of the glass. He immediately renewed the experiment; and repeated it several times with the same success. All the powers of pneumatics, now arose at once to his reflec-

tion! He considered, that if an effect so decided and well manifested was produced by so simple an operation, it might be indefinitely increased under the potent action of an air-pump. He therefore immediately called for Gans, and ordered him to work the pump upon the palm of his hand. This was immediately done, and with such assiduity and violence as to cause the Doctor to cry out to Gans to desist; who, however, absorbed in the function to which he had been first directed, did not obey the contradictory direction until he had received a tangible notification which restored him to his auditory faculty.

The energy and continuance of Gans's operation, however, abundantly indemnified the Doctor by the extraordinary and sensible evidence of its effect; for, whereas he had only felt an inoffensive tightness of the skin and superficial flesh under the wine-glass, he now experienced a powerful and distressing attrac-

tion reaching to the sinews of the hand, and sensible even at the back. He was enchanted with his success! and although it was some hours before he regained the free use of his hand, yet the very intervening incapacitation engendered a species of joy, which none can conceive but those primary geniuses who are destined by nature to engender and originate a perfect novelty. He next made the experiment, with great caution, upon a point of his cranion; having a switch in his hand, by which to communicate with the perceptions of Gans. He found the action very powerful during the operation; and he perceived, that by immediately substituting the wine-glass, the effect was moderately but sensibly prolonged.

He reflected upon the necessary consequence of that same action, carefully, but regularly, continued. He tried it, with violence, on several dried skulls, which presently cracked under the operation. He then tried it, very gently and very considerately, on the heads of numerous animals recently killed, and replete with their fluids; until at length, after various skilful experiments, he completely succeeded in ascertaining the precise degree of force which was sufficient for just soliciting a flexible upward tendency of the fibrous substance of the living cranion, without imparting to it any injury; and which might be retained and encouraged, by the mere application of the wine-glass or common vacuum.

CHAPTER V.

HE REDUCES HIS PRINCIPLES TO PRAC-TICE — HIS HEJIRA.

HE was now in possession of two simple powers, compress and vacuum, equal to every end and object of encephalic practice. He thus found himself placed in the most enviable position in which man ever stood! He saw, in his prospect, every evil tendency of the mind vanish, and every valuable faculty rise into vigour, at his command. He had gained for himself a province, which embraced the final objects of all philosophies, physical and moral; and he had brought them all within his grasp, as entirely as he who turns the handle of an organ is master and producer of all its varieties of tune. Conscious of the purity and benevolence of his own heart, he blessed

Heaven that such a power, as dangerous by abuse as beneficial by use, had not fallen to the lot of any other individual; and he revelled in the honest ambition of effecting a revolution amongst the nations of Christendom, that should perfect their morals, exalt their genius, and extinguish all their animosities.

But he determined, first, to operate upon his own cranion; not only that he might be more intimately acquainted with, and more competent to record accurately, the progress of the two processes; but he thought that he was justly entitled to take the first benefit of his own discovery, and thus to gain a long step before all others, so that he could never afterwards be overtaken. It was therefore his determination to seclude himself from his family and the world during a space of two years, during which time he should subsist under the constant influence of his compress and vacuum; so that the ratios upon which he directed them should be respectively perfected in suppression and development, before any other persons should begin to derive the benefits of his discovery.

He had therefore to determine, on which ratio he should place the compress, and on which the vacuum. His system had always been nervously excitable by every novel or remarkable object or circumstance; and though his temper was never affected, yet his own internal comfort was constantly disturbed by repeated calls from a composure which he regarded as the summum bonum of life. Feeling this to be the point in which his own personal enjoyment was principally concerned, he was more than ever struck, at opening accidentally on those lines of Horace in which that great practical moralist affirms:

[&]quot; Nil admirari prope res est una, Numici,

[&]quot; Solaque quæ possit facere et servare beatum."

[&]quot;To lead a happy life if thou desire,

[&]quot; Numicius! cease for ever to admire."

The truth of this maxim came upon his mind with peculiar force; he was profoundly convinced of its justness; and he resolved to fix a very strong compress upon his turbulent org. admi-ratio. He was next to consider where he should establish the vacuum; and running his eye down his column of ratios, it stopped at the org. aspi-ratio. He had ascertained, that the inspiration of genius was always in direct proportion to the development of this sub-ratio. This organ was therefore definitively fixed upon to receive the benefit of the vacuum; and he resolved to afford it that space in elevation, which its natural limits would not permit in any other direction. He now made several preparations for his projected journey, unknown to his mother and her family; who still resided with him, and whom he would never suffer to quit the paternal dwelling.

But, it is necessary that the reader should make acquaintance with Gans;

who was to form the only companion of Dr. Hirnschädel during the biennial term of his mysterious retreat. After the Doctor's final return from the University of Frankfort, and his establishment in the hereditary mansion; he found it necessary to add to his household a servant, who should attend him in the prosecution of his scientific pursuits. In seeking for an individual on whose assiduity, intelligence, and expertness so much was to depend, he proceeded with great caution; minutely inspecting every cranion that presented itself for his service, in order to read the qualities and dispositions that lurked within. Many were examined, and rejected; in some, very objectionable ratios were strongly developed; in others, the desirable organs, though tolerably well developed. were counteracted or neutralized by the development of adverse ratios. During this perplexity, his eye chanced to fall upon a youth of nineteen, of his own

village, whom he had not before noticed, but who now strongly fixed his attention. The cranion of this youth, whose name was Yacob Gans, was remarkable. not for the development of this or that organ, but for the total absence of all development. Its superficies was as orbicularly level as that of a terrestrial globe; and Dr. Hirnschädel declared, that he had never seen so fine and uniform a concame-ratio of the united organs, even in a fatus. He regarded this phenomenon as a virgin cranion placed at his disposal, to receive its first development from him; in such manner, and by such rules, as he himself should determine. He viewed it as a ball of wax which he might mould to his own designs; he therefore took him into his service to attend his library, dissectingroom, and laboratory: but, Gans's cranion was made of any thing but wax. He was a very good-natured creature; and always wore a smile, which, though

always unintelligent, was always inoffensive. As no ratio was developed, so the manifestation of any was not expected by his equitable master, whose good temper submitted to present inconvenience, in prospect of the advantages he should derive from his own eductions from the virgin cranion; but which, for a long time, he had not leisure to commence. The only ratios which appeared to give promise of future, though without any actual development, were the orgg. ite-ratio, ponde-ratio, vigo-ratio, and vene-ratio. If he was ordered to do any thing for a particular occasion, he would continue to do the same, though the occasion had ceased, until specially ordered to desist; and he placed a china dish on a table, with the same measure of force with which he would set a loaded trunk on the floor. His strength was extraordinary for his years; and his obedience to his master seemed as instinctive as that of his poodle to himself.

The orgg. conside-ratio and matu-ratio, were as yet totally dormant. Dr. Hirnschädel proposed to take advantage of the leisure of his approaching retirement, to execute his operations on Gans's ratios, as well as on his own.

All things being ready for his biennial seclusion, he set out with Gans in a morning of the month of May; without any other attendant, or any other communication to his family, than that he was going to make an excursion of some weeks into Silesia; but, not having any preconcerted plans, he could fix no place to which they could direct letters to him, after Breslaw. He requested them, at the same time, to be under no apprehension concerning him, if his absence should be extended beyond the time he had named; and he assured them, that they should hear from him regularly, at least every month. After loitering a short time on the frontier of Saxony, he traversed Silesia longitudinally, by the line

of the Oder; and entering Galicia, followed the base of the Carpathian mountains until he reached a small retired village at their foot, near Jaczinow, equidistant from the frontiers of Hungary and Moldavia. This quiet and sequestered spot afforded, in every respect, such a retreat as he sought; and he took up his abode in the house of a respectable farmer. Finding his situation very comfortable in this family, he made arrangements with the farmer and his wife, for his permanent residence with them; for, though his baldness and bareness never failed at first sight to operate repulsively, yet his countenance, deportment, and conversation speedily exercised so powerful an attraction, that no one ever parted from him without experiencing a very sincere regret.

After a lapse of four or five days, which were devoted to rest, and as many more to the ordering and cleaning of his apparatus, he began to put himself under

the permanent discipline of his compress and vacuum. He had brought with him a portable air-pump of his own invention, of strong power and most curious construction, adapted to act upon the rhombic form of each ratio, or, more properly speaking, of their nidi. His own compress consisted of a piece of solid gold, shaped to the ratio, and weighing three ounces: it was confined in a band which surrounded the cranion; and when fixed in its place, was secured by a tourniquet, which received a slight turn every morning, at first rising: at which period, the doctor found the texture of the cranion to be more compliant than at any other hour of the day. This compress had been made under his own direction, by an ingenious artist of Kustrin, from two watch-cases and a pair of shoe-buckles. long hereditary in the family; and he thought, that he could not pay a higher tribute of respect to his ancestors who wore them, than by exalting them to the

elevated office to which he had now destined them. The vacuum consisted of a vessel of the finest flint glass, with a rhombic orifice, three inches high, each inch divided into 30°, and graduated upwards on the outside, zero being exactly on a level with the actual surface of the nidus. The air-pump was exercised every morning, at the compliant season above mentioned, upon each nidus, until the effect became somewhat distressing, in order gradually to supple the obduracy of the cranion; after which, the compress and the vacuum were carefully affixed to their respective organs. To lengthen the adhesive effect of the vacuum, and to prevent its too frequent renewal, its rim was fixed to a piece of thick leather well soaked to resist the intrusion of the external air; and an assortment of these standing in a pan of water, together with a lamp, were always ready at hand to replace each as they became detached. Thus helmeted, our encephalologist passed

his days; absorbed into his own feelings, lest any cephalic symptom or sensation should escape his notice, and fail of due recordation.

He had also commenced his operations upon Gans; in order to which, the head of the latter had been very closely shaved. The preventive compress which he had contrived for it, consisted of calculated proportions of lead and zinc. Being unable himself to undertake the violence of the manual pneumatic exercise, lest he should displace or disturb his own attachments, he could only fix the instruments; and a servant of the farmer was employed as the active operator. As the effect of the operation was always very speedily sensible to his own head, he was extremely tender of the feelings of his co-patient, and cautioned the operator not to proceed with inconsiderate violence. After some minutes of pneumatic exhaustion, he asked Gans " How he did?" To which Gans replied, "That he was very well." The

doctor then directed the operator to increase the force of the action, until Gans should bid him desist, or should evince by his countenance some emotion of distress. When the operation had been gently continued for nearly a quarter of an hour, the doctor, who began to be alarmed, asked Gans "what he felt?" Gans, to whose perception the action had been only a soothing undulatory motion exciting somnolency, and who was fallen into a doze, made no reply; but being roused, and the question repeated, he said, "that he " felt nothing." This insensibility a good deal perplexed the doctor; he imagined, that it must result from the perfection, and consequently the strength, of the arch of the concame-ratio. He therefore directed the operator to cease for the present. The same attempt was repeatedly made to rouse the sensibility of the cranion of Gans, but always with the same ill success; which became a source of very unseasonable disquietude to the doctor,

under his own personal circumstances. Another source of disappointment was the rapid growth of Gans's hair. Though closely shaved away, in forty-eight hours it began to spring again with such luxuriancy and such bristly strength, as to have unseated the vacuum, had an occasion for its application been produced. The doctor, therefore, after many infructuous attempts, deemed it expedient, to postpone still further the evocation of Gans's encephalic functionaries, until he should obtain sufficient leisure after his return to Saxony; and to confine all his attention, whilst he remained in Galicia, to the superior importance of his own case.

Nearly six months had elapsed, before Dr. Hirnschädel perceived any notable change; but, about that period, although the compressed organ remained stationary, and the solicited organ kept its level with zero, yet he began to feel a composure amidst the incidents of the day to which

he had hitherto been a stranger; and, at the same time, a brightness and facility of mental conception, which diffused a correspondent brightness over his countenance. These were sure prognostics of ultimate success; and this internal notice of consummating development, inspired him with the patience requisite for awaiting the dilatory period of its complete manifestation. It was not until the approach of the following spring, that the long desired evidence revealed itself distinctly to the eye. On looking attentively at the scale on the vacuum before a window, with a looking-glass in each hand, Dr. Hirnschädel clearly perceived, by the angle of vision, that the surface of the nidus must have risen eight degrees above zero. In the mean time, the compress required another twist of the tourniquet to keep it quite firm in its place. He joyfully called Gans to witness the declared elevation of the ratio; but Gans, after staring some time in all

directions, declared, "that he could see " no change at all;" nor was he able to discern any, until it had risen upwards of half an inch. The great effort, however, was now made, and the great obstacle was now overcome. Nature was called, or rather forced into action, according to new laws; and the progress which was so tardy in its commencement, was no less rapid in its advance. An accurate register was kept by Dr. Hirnschädel, of the changes of the two organs; and, whereas, it had been sufficient at first to note them twice in the month, it became requisite at last to mark them three times in the week.

The aspi-ratio having, at length, acquired the development which Dr. Hirnschädel's internal indications pointed out to him to be sufficient, the air-pump was discontinued. The enlarged nidus was well soaked, several times in the day, with pledgets saturated with a strong solution of phosphat of lime, to confirm its sub-

stance; and, in the intervals, the vacuum was affixed, to secure its form.

It is unnecessary to follow our encephalologist more minutely through each year of his biennium; suffice it to record, that at the expiration of that term, success had realised his warmest hopes. It was now the question of returning. During the period of his absence, he never informed his family of his actual residence; and, in supplying them with monthly assurances of his good health, he employed no other date than "from "the Carpathian mountains;" so that he had received no tidings from them, since he first passed through Breslaw. But, the almost magic effect of the reduction of the org. admi-ratio, caused him to endure that long silence with the most perfect equanimity.

CHAPTER VI.

HE RETURNS TO SAXONY—DISPLAYS
HIS PRACTICE—PREPARES TO DELIVER HIS LECTURES—BECOMES FIRST
ACQUAINTED WITH THE WORKS OF
GALL AND SPURZHEIM—HIS OBSERVATIONS UPON THEM.

HE now set out on his return to Saxony; pursuing the same road by which he had left it, as being best adapted to the org. ite-ratio of Gans. When he was within a few miles of his home, he halted for half a day, and sent Gans forward to apprize his family of his arrival; but, more especially, to prepare them for the great change they were about to witness in his person: at the same time, giving him full and minute instructions how he should proceed in that delicate service, and what he should say.

Gans arrived in the village about noon; and his unexpected presence, as he passed along, excited the most animated interest. Every individual accosted him, and followed him with questions concerning his master; but he so far punctually obeyed his instructions, as to speak to no one before he had communicated with the family. When he arrived at the castle, all was presently agitation and dismay. The appearance of Gans without his master, struck the whole family with a chill of horror; especially, as a long and terrible pause ensued, whilst Gans waited for them to inquire, and they waited for Gans to report: during which interval they earnestly gazed on each other. Nor was that affection at all relieved by a smile which Gans had assumed of more than usual significancy; for they knew that he always wore a smile even under circumstances the most mournful, so that little comfort could be derived, on the present occasion, from that expression.

At length, one of the family ventured, hesitatingly, to ask after his master; to which Gans laconically replied - "He's " coming." Encouraged by this information, another eagerly inquired - "Is he " well?" to which Gans emphatically answered, with a grin - "Yes, he's well." The emphasis thrown upon the last word, seemed to betoken something mysterious; and he was again asked - " Is any "thing the matter?" to which Gans answered, with the same countenance -"You'll see!" Great was the anxiety awakened by this answer, and endless the questions vociferated around him to extort a fuller and more definite replication; but, none of these produced any effect upon the imperturbable Gans, who, without being hurried or disconcerted, only iterated, with the same grin, the same unsatisfying answer-" You'll see - You'll " see!" After many wearisome and apprehensive hours of impatience and watching, Dr. Hirnschädel at length arrived

once more at the baronial door; at which. all the members of the family and household were congregated in a cluster. The reader will remember, that our encephalologist never wore any covering to his head; when, therefore, he appeared in the court of the castle elevated upon his steed, the prediction of Gans was punctually fulfilled: they did see - that which filled them with horror and alarm! The liberated organ had acquired a prominence something like a wen; whilst the depressed organ exhibited an indenture, as if a portion of the skull had been extracted by the operation of the trepan! Their imaginations at once beheld, in all of these, monuments of dangers which he had encountered in the Carpathian mountains; and their agonies were presently interrupted by a raging curiosity to hear, all at once, the details of his conflicts with robbers, his slavery among the Turks of Moldavia, and his fortunate escape from their thraldom. They had the hap-

piness, however, of seeing him in perfect health; and the extraordinary characters of placidness and augmented brilliancy combined in his countenance, manner, and conversation, were not tardy in fixing their observation and exciting their admiration. They chided him for the length of his absence, the mystery of his retirement, and the consequent misery he had caused to their affections: but he playfully over-ruled all their rebukes, saying, that he had only had his Hejira, like Mahomet, and that it would prove of no less benefit to his science, than it had been to the religion of the false prophet. By degrees, he put them in full possession of his whole history; and convinced them, that his cranion had experienced no other violence than that of his own compress and vacuum, and, that it had never been subjected to the sway of any other despot than that of the dominant Ratio resident within.

The intelligence of his return was soon

bruited abroad; and many came to visit him from Kustrin. Many also of his scientific friends of Frankfort-upon-Oder, anxiously repaired to his castle; and the village below, could with difficulty furnish accommodation for the overflow of those who came with the determination of making a long sojourn, that they might reap the earliest harvest of the instruction which he had now qualified himself to impart, and that they might witness the wonderful effects of his new and miraculous practice.

To introduce a catalogue of all the cases of its triumphant success, would be interminable, and consequently, could not be attempted in so brief an account as this; I shall, therefore, only instance one or two. The first case which he undertook after his return, was that of a notorious scold, who was the torment of the village; and in whom the orgg. obi-ratio, vitupe-ratio, vocife-ratio, and exec-ratio, had grown in frightful coequality. Her relations placed

her at the entire disposal of Dr. Hirnschädel; and in less than eight months he had the satisfaction of totally suppressing the first two and the last of those ratios; of considerably reducing the second; and of educing into crescent manifestation, the orgg. mode-ratio, vene-ratio, and susurratio. In a distressing case of lunacy, he had equal success in reducing, by a powerful compress, the orgg. deli-ratio and despe-ratio; and of calling into superior manifestation, the illust-ratio, *speratio, and accu-ratio.

After twelve months, which he took to prepare and arrange all his materials, he disposed himself to deliver those Lectures on the Principles and Practice of Encephalology, which he had so long projected; of which he had already disclosed the Elements; and to attend which, the celebrity of his name had now drawn together such numbers, as to render his little village of Hirnschädel a congress of some of the most enlightened persons of the

neighbouring cities and universities of Germany and Poland.

It was exactly at this critical period, when he was on the point of commencing his course of Encephalology, and whilst his auditors were on the tiptoe of expectation, that Dr. Hirnschädel first became acquainted with the names and writings of the Doctors Gall and Spurzheim. The reputation of Dr. Gall had travelled with such impetuous velocity in the parallel of Vienna westward, to Paris, and from thence to London, that it was not until its return from the latter parallel eastward, into Germany, that it reached the secluded abode of our noble encephalologist; having attracted that of Dr. Spurzheim, in the way. He now received their respective works; which were transmitted to him by one of his early disciples, who had travelled to Paris, and from thence into England. He opened them with a palpitating eagerness, his modesty prompting him to look on their arrival

at this particular moment, as a mysterious favour of fortune; and he embraced them as the means of adding extensively to his own knowledge, without the slightest affection of jealousy arising from the discovery, that those distinguished men had already entered a line of pursuit which he had opened for himself, and which, by his single genius, he had prosecuted to its ultimate termination. He immediately suspended the commencement of his Lectures for a month; in order that he might enrich them with the new and important truths, which his candour and humility convinced him he should find in the writings of those authors. He passed many entire days in reading, studying, and pondering over their works; during which time his words and his countenance were curiously watched by those who were nearest him. Nothing, however, could be collected from the former; but, the latter was observed to wear an expression of very considerable disappointment. At length, on finishing the last work, he was secretly perceived to lay the book very deliberately on his table; and, in a mood of mental absorption, and with a smile of unsarcastic dissatisfaction, to exclaim in the words of the Egyptian priest to Solon — αει παιδες εστε—" Ye are still but "children!"

As he had rendered himself completely master of the principles and doctrines of those writers, his opinion respecting them was eagerly sought by his numerous auditors; but he artfully avoided expressing any positive opinion, feeling it a very delicate point to give judgment in a question in which he was a party so deeply interested; and fearing, lest any condemnation which he might be drawn to pronounce, should be ascribed to a motive abhorrent to his nature. Urged, however, very strongly by some of his senior auditors, to say, generally, what he thought of them? he

ENCEPHALOLOGY.

replied, after a short consideration:-" Why, good - very good; but - little -" very little: good, as far as they go; but "they go so little a way, that it is tanta-" mount to not going at all." Some of his auditors, in their zeal, were forward in pointing out, that he was the first to open this peculiar field of science; but he repressed them at once, by saying, that the question of priority is as uncertain as it is unimportant; that two minds may separately and independently hit upon a truth which offers itself equally to all; that the first man who cut down a tree is undoubtedly the author of cabinet-making; and, that as Drs. Gall and Spurzheim preceded him in print, he cheerfully surrendered to them all the benefit they could derive from that typographical priority. Some ventured to suggest, that these learned Doctors had surreptitiously derived their fundamental . principles from him; but he repelled this suggestion with indignation, affirming,

that if they had derived their principles from him, it was quite impossible they should have halted where they did, and not have pursued them to a common issue with him; and therefore, the infructuosity of their principles, in consequence of their early suppression of their progress, was demonstration that they had drawn them only from their own genius.

Averse, however, as he was to pronounce a judgment upon those authors, and ingenious in finding the means of evading it; the period of the opening of his Lectures was now at hand, when he could not, with consistency or propriety, indulge any longer his reserve. He owed to his auditory, to himself, and to his science, to enter into a full comparison of the doctrines of the Cranion and Phren, propounded by those Doctors, with that of the Encephalus, which he himself was preparing to unfold. He felt the full force and reason of the obligation which was now imposed upon him; and there-

fore, when the path of duty became distinctly marked out to his intelligence, he determined to do effectually, what at the same time he felt he could not do otherwise than very reluctantly. He therefore declared his disapprobation of the doctrines of Gall and Spurzheim, in the following energetic manner.

In the first place; he dwelt on the vacillatory, and very opposite denominations given by them and their school to one and the same science, sometimes denominating it from the cranion, (craniology,) sometimes from the phren, (phrenology); by which oscillation of the vibratio, they missed, without being aware of it, the proper object of their own science, which was neither the cranion nor the phren. The object they both sought was the encephalus or brain, lying between the two; yet, they sometimes named their science after the case which contained it. and sometimes after the unattainable agent that uses it for its instrument:

thus evidently betraying, in the first instance, an unfixedness of first principles. He compared it to taking shelter from the cold of the North Pole in the cold of the South Pole, without perceiving the equatorial and temperate regions that lie between. He would say, that one hit on one side of the nail, and the other on the other side, whereas *Encephalology* hits it directly on the head.

He objected next, that they describe circular figures, of arbitrary forms and sizes, over the whole cranion, calling them organs, all which they number; but, needing more organs than the circular figures can supply, they equally denominate organs all the figures accidentally described by the interstices between these: without inquiring, first, directly or by analogy, whether there is any evidence that a portion of the encephalic organs are circular; and next, whether other organs obediently conform themselves to the waste spaces left between the circular

figures: whereas, the rhombic figures which he described, (see pl. fig. 1.) left no waste spaces, and rendered the forms similar in all; which was far most agreeable to, and best supported by, the economy and uniformity of nature. At the same time, he rendered them the justice of acknowledging; that they have correctly, and most perfectly, preserved the natural analogy to the dorsal gestations of the Bufo Surinamensis. (see pl. fig. 2 and 3; and Shaw's Zoology, vol. iii. p. 167.)

He observed, that after describing only 33 organs, they already found an organ and a figure for every inch of the cranion; as if they had exactly embraced, in that number, every faculty, disposition, and propensity of the human mind: so that all organs to be hereafter discovered in the progress of the science, must necessarily find all the places previously engaged. Whereas, though he had ascertained more than twice that number of organs, yet, much space still remains for

future investigation; in all that range which he has denominated, the terra incognita of the cephalic globe.

All their 33 organs are lumped together, without exhibiting the slightest attention to the fundamental distinction of cerebrum and cerebellum; so that, by their undistinguishing delineation or mapping of the cranion, it would appear as if its contents were either all cerebrum or all cerebellum; whereas, the distinction of these is scrupulously noted in his reticulation, and is essential in the science of Encephalology.

The assumption, that each of the senses has two organs, merely because each has two nerves, is preposterously to assume, that two nerves cannot possibly meet in a common and indivisible point of termination; which is the same as to assume, that no two sides of a triangle can meet in a common point, and therefore, that there is, in fact, no triangle. But, the consciousness of unity of impression ultimately

received from the two nerves, (which unity they themselves admit,) is a far more decisive proof of the unity of organ, than the visible duality of nerves in their progress can be, of the duality of organ.

Whilst enforcing this argument, he took occasion to digress to a very curious point respecting the animal frame in general; in order to shew, how ready the mind is to assume duality, in a case of the most absolute unity. We familiarly speak of flexor muscles, and extensor muscles; until, because we bend the arm and extend the arm, we assume that we exercise two different powers in the one case a bending power, and in the other case an extending power; and yet. the mechanical power which the animal frame, whether human or brute, exerts or can exert, is absolutely one, and one only, viz., the power of contraction. By the exercise of this single power, in various muscles previously disposed with infinite skill, and directed and attached to differ-

ent parts of an equally skilful osseous structure and machinery, (in which exercise we are unconsciously in course of education from the first instant of birth.) the opposite effects of flexure and extension, by which limbs are moved and bodies propelled, are produced; but, the author of this diversity of effect, is the author of the frame; we ourselves, are only contractors of its muscles. Whoever will feel, with ordinary attention, the inner muscles of his arm when he bends the limb, and the outer muscles when he extends it. will be sensible, that all he does is to exercise a similar contractile action in both cases; and the flexion and extension that follow are in no other way attributable to himself, than that he pulls, as it were, a string on one side, and the arm-bone is previously prepared to come in by the hinge of the joint; and he pulls a string on the other side, and the arm-bone is previously prepared to go out by the same hinge. It is thus that all manual operations are achieved; it is thus that a man

walks, and that a horse scours over a plain; viz., by successive and balancing contractions. Opposite muscles, therefore, only balance each other's contractile action. If that action is exerted beyond a certain point, the balance is impaired or destroyed. Of this we see a moderate effect in the string-halt of horses; and we feel it, in violent effect, in cramp or spasm. Perhaps a more curious or awful subject could not be scrutinized, than the laws and limits of voluntary and involuntary contraction. As, therefore, we can trace the two opposite effects of our motions to one and the same action, so we may trace the two nerves of the senses to one and the same organ; and, in both cases, by the unity of consciousness.

These are some of the general objections which Dr. Hirnschädel opposed to the Ologies of Drs. Gall and Spurzheim: he next took an argumentative review of the three principles which constitute the "Out- "line of their System."

"The principal points," say those

teachers, "which are conceived to be "established, are the following:"

- "1. That the brain is the material instrument by means of which the mind carries on intercourse with the external world.
- "2. That the brain is an aggregate of parts, each of which has a special and determinate function.
- "3. That the form of the brain can be "ascertained by inspecting the cranium; "and that the functions of the several "parts may be determined by comparing "the size with the power of manifesting "the mental faculties."

These propositions, embrace all the fundamental principles of the *Cranion* and *Phren*.

Now, Dr. Hirnschädel acknowledged, that the 1st and 2d of these propositions are almost verbatim the same as his own; only, they are expressed with less reflection and less precision. But then, a jump is made (over his 2d, 3d, and 4th, which immediately flow from the former two,) in

order at once to reach a 3d; which is consequently defective and erroneous, but which, nevertheless, concludes their Systems. It is affirmed in these propositions, 1st, That the form of the brain can be ascertained by inspecting the cranion, that is, its external surface: and 2d, that the functions of its parts may be determined by "comparing the size" (of what? for it is not stated; but, we must suppose, of the nidi,) " with the power of manifesting "the mental faculties."

The first of these affirmations, is positively contrary to fact. Unless the external surface exactly and always represented its internal surface, (which most certainly it does not,) it could not enable us, of itself, to ascertain the form of the brain. It is not, therefore, by mere external inspection that this knowledge can ever be obtained; it is only by acquiring an ability to infer the internal surface from the external; and it is not possible to acquire that ability, unless by a long practice, commencing, like his own, in the first years

of infancy. Dr. Gall, himself, did not begin the practice half early enough to contract that habit, if he had sought it, and Dr. Spurzheim began it considerably too late; but, neither of those Ologists directed his attention to the internal surface, remaining perfectly contented with the negative evidence of the external. He naturally considered even Dr. Gall an ofinally (late-learner) in the science, compared with himself; and he would pleasantly say — "Remember the words of Cicero!"—ofinageis homines scis "quam insolentes sint — you know how as-"sumptuous and positive late-learners are."*

The second affirmation, according to their own principles, is equally against fact; for, to compare the size of a nidus with the power of manifesting the mental faculties, is impossible; there can be no apprehensible proportion between them: we may compare it, indeed, with actual manifestation of the faculties, but certainly not with

^{*} Ad Fam. ix. 20.

the power of manifesting, for that power may greatly exceed the actual capacity of the nidus afforded to it: as is demonstrated by the experiment of the bean and tile.

But, supposing those three principles to be sound and unobjectionable; yet, they would scarcely furnish a vestibule for the science. He would ask, what is gained by them unless we advance? they are no more, with relation to the Science to which they point, than the rules of the three concords to the knowledge of the Latin tongue. They resemble, with their circular organs, a road of round pebbles made a little way into a wood, and suddenly terminating at the brambles and bushes which obstruct all further progress; whereas Encephalology, with its rhombic and reticulated organs, resembles the same road renewed, macadamized*, and carried quite through to the country beyond. He could not conceive, how those eminent

^{*} The Mac Adum System is making great progress in Germany.

men could go even as far as they did, without plainly perceiving the compress and vacuum within their own horizon: " since every Thaler (he would sav) might " have suggested to them the former, and "every Trinkglas the latter." They appeared to him something like the traveller who journeyed to see Jerusalem, and, having gained a view of it from the nearest eminence, stopped and turned back. He made all his auditors thoroughly sensible, that if those three celebrated propositions be duly made to yield their natural and legitimate consequences, and the third be rectified from all its obliquities, they must of necessity terminate in the same general issue with his own encephalology; but, exhibited in the suspension of growth and suppression of progress in which their authors have left them, they can only be viewed in the light of an abortion - an embryo that had failed in utero matris. The little playful raillery which he thus occasionally introduced into his discourses, was not designed

sarcastically, or pointed against the distinguished Ologists whose doctrines he was investigating; it was the expression of his own characteristic cheerfulness, and was merely designed to sustain the attention of his auditors, and enliven a subject often exceedingly tedious and fatiguing.

With respect to the organs stated and denominated by those teachers, and which monopolize the whole of the cranion even in the very infancy (nay, even before the infancy) of the science; he shewed, that they were arbitrarily selected, fantastically named, and, in some instances, quite unintelligible. He specified that of "inhabitiveness," which he was convinced Dr. Spurzheim himself did not clearly understand; since neither he, nor any one of his auditors, could at all comprehend it, notwithstanding that Doctor's elaborated explanation: "but, (he added,) "supreme theorists, in the course of "their abstractions, are frequently drawn "to embody their non-conceptions in

"words; from which words, they con"ceive that conception of ideas must
"arise in the minds of others." It
was evident, he said, that Dr. Spurzheim's mind was here labouring to conceive the org. mo-ratio—staying or tarrying; but it unfortunately miscarried, by
the injurious action of the org. frust-ratio.

He now inserted in his table of ratios, the names and numbers of all the Doctor's organs, in order to exhibit their relative paucity; and likewise to shew, that they consisted, generally, either of ratios unwarrantably divided, or of their partial operations. And he concluded, by jocosely observing; that, as the one nomenclature was devoid of all rhyme, so was it nearly devoid of all reason; whereas his own nomenclature, as it unquestionably abounded with rhyme, so did it also unquestionably abound with reason.

There was, however, one particular organ, in adverting to which Dr. Hirnschädel's natural cheerfulness forsook his

countenance, and was replaced by an expression of stern indignation. The organ which provoked this distressing character of severity, was that which Dr. Spurzheim places at the head of his series-into the description of which he enters with such earnest dedication of thought-and which he denominates "the organ of amativeness:" this organ is the same that Dr. Hirnschädel denominates "org. generatio;" and on the subject of which, as was before observed, he was memorably brief and reserved. He expatiated largely on Dr. Spurzheim's treatment of this article, and with a high national feeling. He dreaded lest the English nation, for which he entertained a very particular regard, and of whose refinement he had conceived the most exalted opinion, should receive this gross and offensive article as a rule for judging of the delicacy of the German nations. He formally disclaimed it from the chair, in the most emphatic terms, calling it a blot upon the German

name; and affirming, that it could not possibly advance the interests of science; that it was too well qualified to defile youthful minds; but, that it could afford no gratification whatever, unless to a corrupt and purulent curiosity. He made an animated and eloquent appeal on this subject to his German auditors, in the name of their country; and his appeal was answered by acclamations of assent, which suspended the lecture for a quarter of an hour. He pointed out to them, that the English followers of Spuizheim, though they retain the principle of the article, had cut off and cast away all its corrupt appendages; as a needy person will cut off all the putrid parts of a piece of flesh, to obtain the little morsel which wears the appearance of being sound. He condemned, in the same tone, the Doctor's unwarranted separation of this organ from that which he has named " philogenitiveness, or love of offspring," constituting them two distinct organs;

whereas, he himself found them to be one and the same in man, although in the brute creation they are not united; and he supposed, that the latter fact was the cause of Dr. Spurzheim's error. Yet, he wondered how the Doctor could have failed to perceive; that their union, in the human cerebral system, was determined by the presence of a dominant Ratio, which does not reside in that of brutes. And he concluded his strictures, by clearly demonstrating; that the "Cranioscopy" so confidently asserted by the two great Ologists, can never advance them or their disciples to the "Psychology" which they profess to seek as their end, unless they pass through the Craniosophy and Encephalology interposed between the two: of which he then proceeded to unfold the mysteries, and to display the experimental benefits, in a series of fortyseven Discourses, which electrified his congregated auditory with delight and admiration.

CHAPTER VII.

HE PREPARES FOR A JOURNEY OF EXPLORATION — PASSES THROUGH LEIPSIG — ARRIVES AT PARIS.

Having concluded the course of his lectures on *Encephalology*, in which both himself and his auditory were profoundly sensible of the wonderful effect produced by the enlargement and elevation of his org. aspi-ratio; Dr. Hirnschädel began to contemplate the execution of a plan of travel, which he had before meditated, but which was finally determined by his perusal of the works of Gall and Spurzheim. He now wished, to witness the effect of their doctrines in the countries where they were received; and to examine, at the same time, the crania of

those persons by whom they were embraced. He therefore made the requisite preparations for his journey; but he did not on this occasion take Gans with him, who had received so violent a distaste for travelling, from his excursion to the Carpathian mountains, that nothing could ever induce him again to quit the village of his nativity.

Though Dr. Hirnschädel had persevered in the practice of wearing no covering to his head, the singularity of the effect was immensely diminished at the years to which he had now attained; his baldness, only appeared like a very early loss of hair; and, as to the effects of the compress and vacuum, so many middle-aged men have wens, and so many have scars, that his person attracted very little attention. As, however, he wished to make his projected tour incognito, he thought it expedient to wear a hat, which he caused to be made of the lightest materials. It was his design to proceed by Dresden,

Leipsig, Frankfort on the Mayn, and Metz, to Paris; to pass some months in the latter city; and to proceed from thence to London before the beginning of November, in which month, he was informed, the suicidal epidemy, peculiar to the lastmentioned metropolis, commenced and raged. He was curious to acquire ocular experience of the extraordinary inversion of the org. lace-ratio which then takes place, which renders it the organ of selfdestruction; (as a similar inversion of the admi-ratio, renders it the organ of selflove;) and which, he had been assured, declared itself as remarkably at that season, as the enlargement of the throats of deer in the season of the rut. He passed unobserved through Dresden, but he was recognised at Leipsig, where he was urgently solicited to visit a patient, who laboured under a chronical cephalalgia which her physicians were unable to assuage. He presently ascertained, by inspection, and by his encephalic thermometer, the ratio in which the pain was seated. But, as he was resolved to avoid all similar cases, and as the departure of the Diligence fortunately allowed him but little time, he excused himself on that ground from giving any decided opinion on the case; adding, that he was unwilling to interfere in a line of practice which he regarded as exclusively Dr. Spurzheim's own: and he contented himself, with advising the patient to state her case, minutely and unreservedly, to that eminent Phrenologist; giving her, at the same time, the Doctor's address in London, from his book.

Nothing memorable occurred during the sequel of his journey. On his arrival at Paris, a considerable sensation was produced amongst those eminently scientific persons who had heard of his fame in Saxony; some of whom, indeed, had been present at his lectures, and had recognised him in spite of all his precautions. The interest which these expe-

rienced, was rapidly propagated throughout the most enlightened sages of that capital. There is, perhaps, no spot upon the face of the globe, where Nature is so devoutly reverenced, even to an excess bordering upon bigotry and superstition, as in that celebrated city; and consequently, where any thing tending in the smallest degree to question Her supremacy, or to contract the sphere of Her operation, either in time or extent, is encountered with a nobler indignation, or a more loyal and zealous resistance. This devotion, considering the sex of the Power, is the more remarkable in a people who so strenuously uphold the principle of the Salic law. This is not, indeed, the case, universally; but, chiefly in certain superior individuals of a superior class, which have received, or rather, which have rightfully assumed to themselves the style of "SAPIENTES:" so Dr. Hirnschädel renders them in his Latin. "Ancient Greece," he observed, "could produce only seven of

"this order; but in France they abound." This is, indeed, the only country in which such an Order constitutes a distinct body of the State. The inventor of the compress and vacuum; the sublime genius who had discovered the subjection of mind to matter, and had acquired the power of lifting up or treading down the functions of the brain, and therewith of the intellect; could not fail to receive the most enthusiastic homage from some individuals of so distinguished an order of a people, at once the most inquisitive and the most polite. These looked with admiration, and even with awe, at the irresistible evidences which Dr. Hirnschädel's cranion exhibited, of the efficacy of his science! They delicately solicited permission to approach, and to touch and examine them; and they vied, with each other in the terms by which they enounced the intensity of their emotions. Every one was eager to experience the benefit of the sublimating process, and in the very organ in which it had so proudly succeeded with the illustrious author; but, each wished first to observe the process, scientifically, on the cranion of his neighbour. There was one circumstance which tended to disappoint all in that wish: though the value of the end to be attained was incalculable, yet it was necessarily to be attended with an alteration in the form of the head, which all were averse to undergo. What they so rapturously admired in the Doctor, they thought would be a very ungracious disfigurement in themselves. In this dilemma, they by degrees contented themselves with the proof of the fact that stood before their eyes; and they even found a more abundant source of delight in the latitude which it afforded them, of freely speculating, theorizing, and deducing inferences, on the relations of matter and mind. Those inferences, in the rapid course of their deductions, chanced to meet with resistance from Dr. Hirnschädel; to whom they appeared to tend to the deification of matter, or at least to the ascription of all primary effects to a mere nominal cause, which left the mind without any intelligible and available idea higher than matter itself. He, therefore, argued the necessity of referring to an intelligible idea, for a primary cause to which all primary effects, both of matter and of mind, must be ultimately and practically referred; and, therefore, to an intelligent cause, originally operative, and actually coercive, even of nature Herself; and, being a religious man, the progress of collision in argument and enforcement threw him by degrees within the intrenchments of that theology, in which, as an earnest and sincere Lutheran, he was strongly fortified. But, he had here passed to ground totally foreign to the laws of Sapiency and Philosophy! Argument, therefore, became suddenly suspended, in the astonishment with which he was

now silently and curiously surveyed. He had been contemplated in the zenith of genius, he was now seen fallen to the nadir of superstition. Civility for a time continued, perhaps was increased; but, disappointment had given to it all the rigor of formality. The animated interest which he had at first excited among those of the "SAPIENTES" who had monopolized him, gave place to something less than indifference; and the regularity and devotion with which it was discovered that he attended the services of his own Lutheran church, afforded full demonstration, that the quality of philosopher, which had been conferred upon him with such prodigal largess, had been hastily and inconsiderately bestowed. The names of Gall and Spurzheim, which had hitherto been studiously avoided in his presence, were now as studiously introduced, with terms of high applause; and Dr. Hirnschädel, after several weeks of residence, found himself with a paucity of acquaintance, better proportioned to the arrival of a stranger in a capital, than to the eve of his departure from it.

This loss of exaggerated and capricious applause, caused no disquiet to the placid and unadmiring Doctor. He had had abundant and sufficient opportunities of examining the crania of the "SAPIENTES," which were his chief concern; he wished to compare them with those of the other classes of the nation; and he had now acquired a freedom from complimentary importunity, which enabled him peaceably to pursue that object. He therefore devoted to it all the time that remained, before his November visit to London. He formed new acquaintances, and was highly gratified with the courtesy he experienced from all ranks of the nation. Those acquaintances, opened to him various channels by which he was enabled to carry forward his important investigations; until, at length, he accomplished every object, which he had sought to attain by means of a residence in Paris. The observations which he there made, are elaborately drawn out in his *Journal*, and will appear in his great work; I shall only here notice the general sum of them, taken from the abbreviated notes which he inserted in his *Pocket-book*.

He remarked a very extraordinary phenomenon, peculiar to this nation. In stating their encephalic characteristics, he found himself obliged to adopt a chronological arrangement, divided into periods.

In Franco-Gallic crania of about forty years ago, and upwards indefinitely, (for so he denominated the French people,) he found uniformly developed, in eminent manifestation, the orgg. appa-ratio, aspiratio, bellige-ratio, supe-ratio, celeb-ratio; with which were extensively combined, the orgg. obtempe-ratio and vene-ratio. During a long succeeding series of years, he found the first five of those organs morbidly enlarged; and the last two totally suppressed, and replaced by a

tumid and irregular development of the libe-ratio, conspi-ratio, vocife-ratio, er-ratio, lace-ratio, and deli-ratio. In the 3d and last period, and to the present time; the last five organs have subsided; leaving only the org. libe-ratio balanced by a considerable reproduction of the obtemperatio and vene-ratio, and with a fair promise of an increased development of the mode-ratio. The crania of the order " SAPIENTES," (which he very minutely inspected,) besides sharing many of the common national characters, exhibited prodigious enlargements of the orgg. explo-ratio, conside-ratio, penet-ratio, numeratio, mensu-ratio, lib-ratio, and asseveratio; but, very frequently accompanied by notable manifestations of the exaggeratio, er-ratio, and frust-ratio. With respect to the disciples of Gall and Spurzheim; he reserved himself till he had inspected those in England and Scotland, that he might characterize them all together.

CHAPTER VIII.

HE ARRIVES INCOGNITO IN LONDON.

Anxious, now, not to be too late for the November season in London, he left Paris at the end of October, and arrived in the former city before the expiration of that month. The same suppression of the admi-ratio which had made him indifferent to the curiosities of Paris, made him equally so to those of this metropolis; heads, and now especially November-heads, engrossed all his interest. But, it was his intention to observe the closest incognito during his continuance in this country. Several motives governed this determination. First, the hours observed in England, were in every respect in opposition to those of Germany, by which the habits

of his mind had been formed. Secondly, he wished to investigate, unknown, the influence of Craniology and Phrenology in England; and to observe, without suspicion, all the heads of the disciples of Gall and Spurzheim that he might be fortunate enough to meet with, and which he had heard were numerous in some parts of the kingdom. But, there was another reason, which had more weight with him than either of these; of this, I shall now put the reader in possession.

It has already been observed, that Dr. Hirnschädel entertained a very kindly disposition towards the English. It amounted, indeed, to a very strong predilection; and arose from a most patriotic principle. Being himself the representative of a most ancient Saxon family, which could trace back its genealogy by written records until it was lost in the remotest ages before records were written; and of which, the heads of the elder branch are ascertained to have never quitted their

native seats in Saxony; he regarded the English, whom he always denominated Anglo-Saxons, as the descendants of the younger branches of his family; and he early disposed his heart to feel towards them that sentiment of fraternal, I may truly say, germanic affection, which the hearts of elder brothers are formed by nature to entertain towards the juniors of their house, and which partakes in no small degree of the nature of parental protection. The family of HIRNSCHADEL (which word in the German language signifies A SKULL) was so named from an illustrious ancestor, who had triumphantly worn the skull of a Roman Legatus brained by his own hand at the destruction of the army of Varus; and who, by ancient intermarriages, was remotely related to Arminius, Captain General of the Germans in that signal and sanguinary victory. Hence, the arms of HIRN-SCHADEL had ever been, a field gules, charged with a skull proper, with the

motto - "Cerebrosus prosilit Unus;" but, this last the Doctor now felt himself fully authorised to qualify, by substituting -"Cerebrosus prosilit Alter," as denotative of the prominence which he himself had acquired by his Encephalology. He was thoroughly convinced, that the Anglo-Saxons must retain an unperishing and lively remembrance of that great ancestral achievement; and, as he felt himself the antitype of the great progenitor who had first distinguished the cranion as the badge and glory of his house, he was averse to kindle, by the disclosure of his name, the sensibilities which its announcement must necessarily excite in the relations of consanguinity in which they stood towards each other; by which agitation, and its consequences, the great object of his journey might be jeoparded, if not altogether frustrated. He therefore locked up his seal in his desk, before he left Paris; and he assumed the name of HAUPT, the maiden name of his mother,

under which name he travelled during the whole time of his continuance in this United Kingdom.

The necessary consequence of this measure was, that he entered London unknown, and without any introductory or recommendatory letters. To remedy this disadvantage, and to secure the objects of his pursuit, he sought out and found two German peruke-makers and haircutters of celebrity, of whom he had received information previously to his leaving Germany; the one a native of Lusatia. the other of Franconia. They had resided many years in London, and had fortunately established themselves in distant parts of the capital; the one in St. James' Street, the other near to Lincoln's Inn Fields. To these he repaired, with the hope of making many important discoveries through the mystery of their profession; and he engaged them to provide him with a very light peruke, to

veil the cephalic features which must otherwise have betrayed him.

In the mean time, the November season was not to be lost. He was determined to devote that whole month, to the daily inspection of the heads of the drowned persons drawn out of the Thames. With this view, he passed his days ambulating between Lambeth and London-bridge; watching both the river, and every uncovered head that he had the good fortune to encounter. An entire week passed, without any success in this pursuit; and he concluded, that this was a late season. A second week passed, with a similar result; and he then began to feel something like a shooting in the seat of the admi-ratio, notwithstanding the total suppression of the organ, as an amputated arm feels a sensation in the fingers. In the middle of the third week, however. he observed a crowd assembled at the side of the river a little above Lambeth.

He eagerly hastened to the spot, and, on his arrival, found a body which had been just drawn out of the water, and which was lying on the bank. He immediately approached it; and began to handle it in so scientific a manner, that the by-standers presently perceived that he was a professional man, and suffered him to continue his examination without interruption. They expected every moment, that he would give directions how the body should be treated with a view to the restoration of life; but their astonishment was great, when, after he had fingered the head for a considerable time, and searched attentively between the hair. they only saw him take out his pocketbook, and write in it with great intensity of thought; and then, returning it to his pocket, proceed in profound abstraction, and with a very deliberate pace, towards Westminster-bridge. When the reader considers the extraordinary perplexity in which Dr. Hirnschädel's mind must have

been involved, by visiting the banks of the Thames daily for nearly three entire weeks of the month of November, without experiencing any of the cases which he had been assured occurred by dozens every day during that pestilential month; he will justify him from any imputation of inhumanity in having accidentally overlooked, at such a moment, the important orgg. respi-ratio and restau-ratio. In the case of this solitary individual, he was further perplexed, by finding no other ratio strongly charactered that could be at all considered as causative of the death, but the org. ponde-ratio; the orgg. despe-ratio and lace-ratio being wholly undeveloped; and he justly observed, that the former ratio might have equally manifested its power in any other month of the year, and therefore, that the death could not justly or reasonably be ascribed to any influenza of the present month.

This was the only case of drowning which he witnessed, or could hear of

within the Bills of Mortality, during the whole month of November that he was in London; and from thence he thought himself perfectly qualified to contradict the calumny, so actively circulated among the Continental nations of Europe, of an annual suicidal rut among the Anglo-Saxons, which occurred contemporaneously with the first denudation of their forests, and the rise of that gloom which gives "dreadful note of preparation" of the hibernal death of the year. He took a generous delight in having thus empowered himself to become the effectual vindicator of a kindred nation; and he distinctly pronounced, that he did not find the org. lace-ratio more manifested, either in size, frequency, or inversion, among the Anglo-Saxons, than he had ever found it among the Franco-Gauls or the Germans. Having settled his mind on this great primary question, he now turned his thoughts to a general investigation of the crania of England; but, more especially

of those of the disciples of Gall and Spurzheim.

Abundant opportunities were afforded him to pursue this object by means of his German coadjutors, to whom he had confidentially imparted his views; and assuming, by an understanding with them, the character of one of their own trade, he was readily permitted by their customers (who took an interest in him as a new arriver from Germany,) to remain in the shop, and even to take a part in familiar discourse, whilst their heads were either shaving or trimming. So that, during six months, several hundred heads came under his close inspection, of every description and of every class; sometimes from the West end of the town, sometimes from the Inns of Court and the City, according as he changed his station between St. James's Street, and Lincoln's Inn. Among these, he found many who were the declared disciples of Gall and Spurzheim; for, having prepared his friends

with the means of furthering his object, they found it easy to introduce the subject, as it were incidentally, whilst handling a part which those philosophers have advanced to such eminent celebrity. In these conversations, (which all persons are well disposed to encourage with their barber or hair-dresser,) the votaries of the Cranion and Phren readily and unreservedly discovered themselves; and were easily drawn out into copious discussion and argument, by a skilful opposition occasionally thrown in by the operator. So that Dr. Hirnschädel, who appeared to take no concern in the question, was the better able to make and to digest his remarks.

By means of his friend at Lincoln's Inn, he further obtained an introduction to the Royal College of Surgeons. Here, by his manners and the superior skill in his own faculty which he displayed, added to the circumstance of his being a foreigner recently arrived in London, he

presently established for himself so good a ground, that, by the friendships he formed in that noble Institution, the opportunities of prosecuting his researches on the *crania* of England multiplied to the utmost extent of his wishes or his time; to promote which, he felt but little repugnance, under his present perfect incognito, to submit to the occasional imputation of being a disciple of Gall and Spurzheim.

The portion of time which he was able to allot to England being now nearly exhausted, he entered his observations at considerable length in his Journal; and compressed the general result in his Pocket-book, in the abbreviated form which he had adopted for the benefit of immediate reference.

He observed universally in the Anglo-Saxon crania, a very remarkable development of the orgg. supe-ratio, libe-ratio, bellige-ratio, perseve-ratio, celeb-ratio, administ-ratio, conside-ratio, and vene-ratio;

but he lamented to find, experimentally, that the first of these, the org. supe-ratio, was very unequally balanced by the moderatio, and that it very strongly attracted to itself the org. exagge-ratio. He had suspected this, from the observations he had so frequently heard in Germany; and he was much grieved, to find the fact fully confirmed. He was grieved, because he felt a personal concern in whatever affected the interests and name of the Anglo-Saxons; and he found, that this undue equality between the supe-ratio and exagge-ratio, and inferiority of the mode-ratio, was the cause of much offence taken by other nations against, and consequently, of the loss of many advantages to, the Anglo-Saxons, in their frequent migrations on the Continent. He also thought, that it was exceedingly unbecoming a nation descended from a generation of Saxon cadets, who had left their native country to seek their fortune and their bread. And, although they had grown in wealth and power to a

point of eminence which never entered into the prospect of their migratory ancestors, and, in his partial opinion, stood foremost amongst all the nations out of Saxony Proper; yet, they should have had respect always to the circumstances of their origin, and not have encouraged the germination of associations in their encephali, productive necessarily of attractions and co-enlargements of the ratios and their nidi, which he himself, though the Head of an Elder Branch, should be ashamed to encourage. He trusted, that when his great work should have diffused his science and his art throughout Europe, to this "ultima Thule," his name, together with the knowledge that he had sojourned incognito amongst them, and had closely observed them, would have influence with the whole Anglo-Saxon people, to fix a compress upon their exagge-ratio, and a vacuum upon their mode-ratio.

He observed likewise, in extraordinary activity among them, and in universal

and equal development, that very ratio which he had taken so much pains to suppress in his own cranion, viz. the org. admi-ratio; which phenomenon afforded him endless amusement, and the effects of which he thought could not be better described than in the words of their own Shakspeare: whose representation, though written two hundred years ago, is curiously characteristic of them at the present day .- " A strange fish! Were I in Eng-" land (as I once was), and had but this "fish painted, not a holiday-fool there " but would give a piece of silver: there " would this monster make a man. Any "strange beast there makes a man: when "they will not give a doit to relieve a " lame beggar, they will lay out ten to " see a dead Indian."* He strongly recommended a moderate compress upon this ratio also.

With respect to the language of this

^{*} Tempest, Act ii., Scene 2.

people, which he had hitherto known only as a written language; he was much concerned, to discover how greatly it had declined from its primitive magnificence and sonorous utterance. It had degenerated into a sort of chirping, in which the lips only were exercised; the action of the throat, seemed to be altogether paralysed. The names of places, hardly drew the attention of the ear sufficiently to reach the memory; they were without dignity, either of sound or construction; nor did he ever hear one that could at all venture to measure itself with "KATZEN-"ELLENBOGEN!" The words of the language, they had mutilated by cutting off the heads and tails of the primitive Teutonic words, in order to adapt them to their indolent lip-utterance; and they had inverted the whole order of the syntax, placing the verb before the accusative case, instead of after it where it ought naturally to stand. He was mortified, to see the language so inextricably inwoven

with evidences of the successive conquests of the Romans and Franco-Gauls. For, though the Anglo-Saxon migration are recorded to have expelled the Romans from the island, yet, there is more of Roman than of Teutonic in the present language; from whence he shrewdly suspected, that the successes of the junior branch were not quite as uniform as they had reported them to the elder branch in Saxony: although they now ingeniously endeavour to account for this prevalence of the Latin, by ascribing it to the long-continued domination of the Church of Rome.

With respect to the disciples of Gall and Spurzheim, he still reserved his observations until he had completed his researches in Scotland; in order that he might be able to draw up, in one result, the sum of his remarks on those of Paris, London, and Edinburgh.

CHAPTER IX.

HE PROCEEDS TO SCOTLAND — AND IRELAND — QUITS DUBLIN TO RETURN HOME.

HE proceeded to Scotland by the way of Berwick, and passed two months at Edinburgh under his travelling name of HAUPT; where his good fortune and his ingenuity concurred to open to him opportunities of science very similar to those which he had acquired in London, but which it is wholly unnecessary to detail here. He actively investigated the Scottish crania; and was presently interested, by discovering the org. conside-ratio to be notably and universally developed in all classes of the people: a phenomenon, which he had never before experienced in any nation. What astonished

him was, that it was always in present activity. If he asked a question of a labourer on the road, or a husbandman in a field; he was immediately told, with a meditative countenance, "I'm thinking!"— At first, he made a gesture of apology, and passed on; but he soon found, that such was the tenacious vigour of the organ that he did not disturb their cogitations; and that, after the first notification of their mental engagement, the answer to his question followed as readily, and even more distinctly than had usually been the case in England; which he attributed to the more constant exercise of the conside ratio. But, what surprised him still more, was to find that the intensity of this practice excited something anticipative or predictive; which he imagined must be connected with the faculty of second-sight, of which he had heard much amongst the Scots. If he came suddenly and unexpectedly upon a perfect stranger, and inquired (for example) which was his

nearest way to a given place; he found, that his question was already under the deliberation of the conside-ratio:—" I'm "thinking, that your nearest way is, so and "so," was the divinational answer that would fill him with perplexity! and he often pondered in his mind, whether the result of the thought would have been courteously imparted, if he had abstained from the formality of proposing his question.

During his residence in Edinburgh, his national affection drew him aside into a strong party-feeling, as soon as he had learned, by perusing the "Lady of the Lake," that the Scottish nation is divided into Saxons and Non-Saxons, a fact of which he was before wholly unapprised; and the force of the bias was greatly increased, on perceiving the name of Saxon to be there used as a term of hostility and reproach. The reader will therefore make a candid allowance for the greater inclination which he entertained towards the

Lowland-Scots, than towards those of the Highlands. This sentiment, however, did not in the smallest degree affect his respect for the latter, nor cause him to judge less favourably of them, much less did it induce any difference in his deportment towards them; only it gave him towards the one a feeling of kindred, always attended with a sentiment of personal interest, which he did not, and could not rationally, feel towards the other.

The result of his observations on the crania of Scotland, are to this effect. He found, as in England, a very eminent development of the orgg. supe-ratio, libe-ratio, belligeratio, perseve-ratio, celeb-ratio, administratio, and vene-ratio; but, he also perceived a strong manifestation of the obi-ratio, generally indeed balanced by the consideratio, yet too often attracting the org. exaspi-ratio. He was moreover struck in his general survey, on comparing the orgg. mo-ratio and mig-ratio, to see how peculiarly they were distributed. He thought

he perceived, that the former ratio was more widely developed among the Highland-Scots than among his kindred of the Lowlands, among which latter, the org. mig-ratio appeared to him to be very generally declared; and he conceived this phenomenon to be the effect of an hereditary impulse, originally transmitted from the first migration of the junior branches from their native seats in Saxony. He had witnessed this effect in a very remarkable degree among the Anglo-Saxons, in his journey through Germany and Franco-Gaul; every inn, coffee-house, post-house, custom-house, theatre, public walk, shop, swarmed with them; they were in motion on every road; but, evidently with no view to conquest, as they were in small parties, with their women and carriages. This observation, however, he marked with an obelus, signifying, that it was a point to be reconsidered at a future period. The org. augu-ratio, or secondsight, he found to be manifested in very

rare instances, and that only in crania of the Highlands.

With respect to the joint result of his observations on the encephali and nidi of the disciples of Gall and Spurzheim, in France, England, and Scotland; I must apprise the reader, that he has rendered them very brief in the memoranda of his pocketbook, from which alone I now write, although he has expatiated largely on that subject in his Journal. He observed, generally, in all of these, a most prodigious development of the org. admi-ratio, and of the two amiable orgg. vene-ratio and obtempe-ratio; attracted by the er-ratio, in equal development. The org. accu-ratio, he found to be wholly undeveloped; and the org. conside-ratio, in a very tardy and inadequate state of manifestation. There is also a note in his pocket-book respecting the encephalic organs of the Ologists of the Cranion and Phren, founded upon their prints and busts. In both these he observed, that whilst they shewed the same manifestation of the er-ratio, and the same defects of the accu-ratio and consideratio as their disciples; the orgg. veneratio and obtempe-ratio, so pleasingly exhibited in the latter, were here replaced by equal enlargements of the supe-ratio and asseve-ratio: attended, moreover, with a very singular formation of the frust-ratio, to which he ascribed the abortion of their Ologies already remarked at p. 107.

Having completed his researches in Scotland, he prepared himself for the sequel of his journey; and, as his lectures in Saxony had been announced for the beginning of the ensuing autumn, he had no time to waste. He therefore took the shortest course for visiting Ireland, by proceeding at once to Port Patrick, and crossing to Donaghadee. In his progress from that port to the Irish Capital, he found an interest awakened, as extraordinary as it was wholly unexpected; and which was unceasingly maintained, until his arrival in Dublin. The observations

which he was led to make at every instant on the road, rendered him impatient to obtain an opportunity of leisurely investigating a phenomenon so entirely new to him, and which he found to be very general in the country.

On his arrival in Dublin, he took his usual means for opening to himself a channel to the ordinary objects of his pursuit; and the courtesy, warmth, and open-heartedness which met him on every side, procured him every facility. The extreme vivacity of the people of all ranks, so opposite to the German phlegm, and so different in character from any form of gaiety he had elsewhere witnessed, struck him very forcibly; and at the same time led him to suspect, that the org. vib-ratio was here in extraordinary development and activity. He had found this organ in a remarkable state of subordinancy in Scotland, being resisted by the lib-ratio, and coerced by the consideratio; in England, it was moderately

manifested; but, here it appeared to have gained a sort of predominancy among the ratios. Whilst extending his researches and inquiries to ascertain this point, he was inexpressibly surprised to hear, in common parlance, of an entirely new ratio, (making a 69th,) of which he had never before either heard or read. It will easily be imagined by the reader, that, to the originator of the system of the Rationals, such an unlooked-for discovery must have been a source of the most animated interest. He immediately noted it in his pocket-book, as it struck his ear; and, as he wrote all his notes in Latin, he entered it by the denomination -" org. bothe-ratio." He was extremely inquisitive respecting it; and endeavoured to gain every possible information, concerning this encephalic novelty. By means of the examples adduced to him for illustration, he found, on minute examination; that this new ratio, which he had never yet detected, is situated between

the positive and negative ratios, (the Ratio and *Irratio) and that, by the over-excitement of the org. vib-ratio acting immediately above it, it receives a compound and simultaneous influence from both. Having an imperfect knowledge of the English language, and therefore a bolder promptness to etymologize in it, Dr. Hirnschädel presently assumed, that the denomination of the organ must have respect to both the ratios whose adverse influences become occasionally commixed in it; and, imagining that he perfectly understood the explanations that were given him, he compressed his description of it into this scientific form: -" org. bothe-ratio-sive ambarum ratio-" num (pos. et neg.) mistura fortuita, effer-" vescens, Bullas gignens." He considered this discovery as a very sufficient warning to the schools of the Cranion and Phren; that they had not yet explored, as they fondly persuaded themselves, every region of the cephalic globe.

One day, whilst his thoughts were profoundly engaged with this new and curious discovery; he was suddenly roused from his meditations, by a voice that exclaimed - " Baron Hirnschadel! and is "it yourself? and sure it is your own " self: I'm heartily glad to see you! "And what on earth has brought you "amongst us?" The Doctor was not a little disconcerted, for a moment. at this sudden and unlooked-for disclosure of his name and dignity; when, turning his head, he beheld an old friend of his father, an Irish Roman Catholic officer in the service of the Elector. now King, of Saxony; who, during the autumn months, had been used in his early life to come over to the castle of Hirnschädel from Dresden, to partake of the sports of the forest. After a mutual exchange of most cordial salutations -" Well, Baron, how go on the Ratios?" continued the old Colonel, laughing. "Prosperously," replied the Doctor, "for

"I have just discovered one in your " country, which I never heard of before." "Ay!" cried the Colonel, "and pray what " is that?" " The org. bothe-ratio;" rejoined the Doctor, with scientific gravity. " What!" said the colonel, laughing heartily, "did not you know of that " before? I have known it all my life, and " felt it too: why, I could have supplied "you with that." The warmth of the Colonel's heart, made him view with delight the presence of the son of his old friend; and he glowed to repay, with usurious interest, all the kindness and pleasure he had received from the father during the first years of his manhood, when an hospitable and friendly resort is of such peculiar value to a young stranger in a foreign land. He therefore, at once, placed three-fourths of his heart at the entire disposal of the Doctor; and was indefatigable in shewing him every possible kindness, and rendering him every possible service. Nothing could be more opposite

than these two friends in their pursuits, and nothing more congenial in their affections. The Doctor's science constantly provoked the inoffensive raillery of the Colonel, and the Colonel's raillery the placid and patient argument of the Doctor. Upon one of these occasions, the Colonel was so far brought to listen as to be induced to say, merrily; " Well, now, Baron,-I beg your pardon "- Doctor-let us hear something of " these Organs or Ratios—or Bothe-ratios." The Doctor, gladly seizing the opportunity, endeavoured to compress into as short and apprehensible a synopsis as he could devise, his doctrine of the encephalus, its functionaries, and their nidi; of the cranion, and its indicatory prominences; and, after having brought the Colonel to a conviction, and an acknowledgment, that he actually felt some of those prominences upon his own cranion, was proceeding with his inductions; when the Colonel, who found the concatenation too

long for his attention and retention, suddenly cut it asunder by exclaiming— "I'll tell you what, Doctor; it's my belief "they rise like blisters on a pie-crust, from "the heat and the bother within." Much mirth ensued; but the Doctor thenceforward reserved his science for himself, whilst he gave to the Colonel the stores of his wit and urbanity.

The progress of the year now summoned Dr. Hirnschädel to Saxony; he therefore proposed a final meeting with the Colonel. During this last meeting; "I suppose (said the merry Colonel) that "you will set us all down under the Bothe-"ratio." "Not exactly so," replied the Doctor; "for I carry away with me a "good list of other Ratios, under which "you will all figure." In concluding this subject, he added, with a grave and reflective countenance, and as a general result of all his researches and peregrinations; "that the ratios which appeared "to him to be the most universally and

"equally developed amongst mankind, "were the orgg. gene-ratio and bellige"ratio—love and fighting." This scientific axiom, delivered with didactic solemnity, singularly caught the fancy of the lively old Colonel; and long, and loud, and boisterous, was the laugh which it provoked. At their separation, a promise was demanded by the Doctor, and readily given by the Colonel; that, soon after the return of the latter to Dresden in the following month, he would come and pass some time with the Hirnschädels, and revisit the well-known forests in the neighbourhood of Sonnenburg.

Dr. Hirnschädel was highly gratified with his residence in Dublin; not only because it afforded him an unlooked-for opportunity of extending the bounds of his own science, but, because he there experienced, through the friendship of the Colonel, a cordiality and kindness, as well as an amusement, that was perfectly new to him. He thought the civility of the

Irish very analogous to that of the French; but, with this material difference, that it inspired no doubt or mistrust: the sincerity of the former was to be ascertained only by experience, whereas, that of the latter was manifest at once. He found in this people, as in the Scots and Anglo-Saxons, a very distinguished development of the orgg. supe-ratio, liberatio, bellige-ratio, celeb-ratio, administratio, vene-ratio, and also of o-ratio; but still, he found the org. vib-ratio to be much more generally influential in this country, than he had ever witnessed elsewhere.

Dr. Hirnschädel, becoming pressed for time, bid farewell to Dublin with regard and regret, and took his passage to Chester; from whence he proceeded directly to London. He made but a short stay in that capital; and then, embarked in the river for Ostend. As he retired from the shores of England, he mused with strong feelings of pride and affection on so glorious a country, conquered and retained

by his own kindred; and he naturally reflected, if the junior branches alone had been able to effect such an achievement, what might they not have accomplished with the aid and co-operation of the elder branches! On his arrival at Ostend, being impatient to reach his home, he hastened, by the way of Brussels, to Cologne; where he took a place in the Côche-d'eau for Mentz.

CHAPTER X.

HIS JOURNEY - ARRIVAL - OBITUARY.

DURING his ascent of the Rhine, in that sublime but desert part of its channel which lies between Oberwesel and St. Goar, a tremendous storm of thunder and lightning, followed by a deluge of rain, overtook the passengers; and, the numbers on board being great and the means of shelter inadequate, and no houses occurring in which they could take refuge, Dr. Hirnschädel, with many others, was drenched to the skin upon the deck; and, for the same reason that they could not find shelter, they could not relieve themselves from their wet apparel. To a frame like that of Dr. Hirnschädel, whose whole life had been stationary except during the two comparatively short journeys of his Hejira; but who, for many months past, had been in a state of continual movement wholly unnatural to his former habits; such a disaster could not fail to be productive of the most serious consequences. On his arrival at Mentz he felt himself ill, and hastened to Frankfort; and from thence, with increasing symptoms of ailment, to Leipsig. Here, a fever began to threaten him; which induced him imprudently to accelerate his journey to Dresden, in the hope of reaching his home before any crisis should occur. He was strongly urged at Dresden, not to proceed; but, such was his impatience to return to his own house, that, with increasing febrile symptoms and debility, he continued his journey. On his arrival at Hirnschädel, he was immediately obliged to take to his bed. The tranquillity of mind and body which the attainment of his home had afforded, gave hope for a few days that the fever was abating; but, it rose again with increasing malignity, and, falling upon the brain, produced an inflammation, which, at the end of four days, put an end to his important and valuable life!

Thus unexpectedly and prematurely died, in the meridian of mental vigour, in the luxuriancy of experience, and in the blaze of reputation, BARON DOCTOR ERNST HIRNSCHADEL: the Discoverer of the Rationals, the Inventor of the Compress and Vacuum, and the Reducer of the erratic Ologies of the Cranion and Phren, into the central and only legitimate Ology of the Encephalus. Great are the obligations by which mankind are bound to all those eminent geniuses who generously project its benefit; great, therefore, must be those by which they are bound to the names and the projections of the Doctors Gall and Spurzheim; but, the gratitude, the justice, the rationality of posterity will unite with one voice in acclaiming, that the most constrictive obligations by which they are bound, are, without any rivality, those

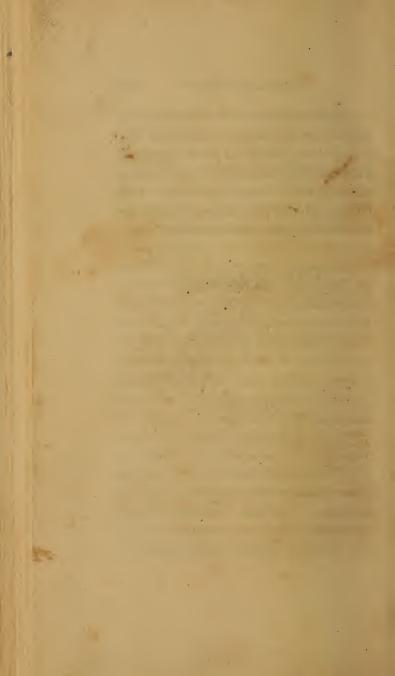
which bind them for ever to the imperishable name, and victorious execution, of ERNST HIRNSCHADEL!

Dr. Hirnschadel, by his last will and testament, left his body to be interred in the cemetery of his fore-fathers, and his Cranion, with its Encephalus, after a skilful preparation, to be placed in a sepulchral shrine, and deposited in the Anatotomical Museum of the University of Frankfort upon Oder. He moreover left the sum of 20,000 florins, as a fund for its preservation; together with a most solemn condition, that it should be exposed only to such persons as had received a Diploma of Doctor of Physic from that university, and only on certain days, and hours, specified in his will: by which wise provision, it is happily secured for ever from the idle and profane gaze of the common traveller. His journals, lectures, and the voluminous mass of his manuscript, Dr. Hirnschädel bequeathed to his family; and they are

now under examination and arrangement, with a view to their publication, as has already been stated. I have purposely abstained from multiplying explanatory plates in this "Very Brief Sketch," that I might not, in any degree, impair the future sale of that admirable work.

JAMQUE OPUS EXEGI, &c.

THE END.



GLOSSARY.

Bufo, a toad. the head. Cephalus,

pertaining to the head. Cephalic,

Cephalalgia, headach. Cerebrum, the brain. Lat. the hind-brain. Cerebellum. Cranion. the skull.

Craniology, knowledge of the skull.

simple Craniological and Phre-Cranioscopy, nological inspection of the external surface of the cranion.

Dr. HIRNSCHADEL'S peculiar Craniosophy, science of deducing the internal surface of the cranion from the external, and, by that means, of ascertaining the true form of the

brain.

Dorsal. pertaining to the back. Encephalus, the brain. Gr.

pertaining to the brain. Encephalic,

Encephalology, knowledge of the brain. Follis, a bellows.

Mollities, softness. Nidus, a nest. the hind-brain. Parencephalis,

(pronounce Phreen) the mind. Phren, Phrenology, knowledge of the mind.

knowledge of the soul. Psychology,

Rhomb, lozenge.

GLOSSARY.

Rhombic, Rut, lozenge-shaped.
(Fr. rut,) this word evidently appears to be of the same origin as the French rot, roter, and to signify the eructant sound of the throats of deer during the season of autumn.

RATIOS.

Appa-ratio, gallantry, magnificence, &c.
Aufe-ratio, carrying off, thieving, &c.
Augu-ratio, fortune-telling, second-sight, witchcraft, &c.
Bellige-ratio, warring, fighting, &c.
Concame-ratio, vault, arch, &c.
Deside-ratio, desire, coveting, &c.
Frust-ratio, failure, disappointment, &c.
Fulgu-ratio, flashing, dashing, &c.
Lace-ratio, destroying, &c.
Lib-ratio, balancing, &c.
Matu-ratio, hastening, &c.
Mo-ratio, staying, tarrying, &c.
Obi-ratio, anger, rage, &c.

Agge-ratio, heaping, building, constructing, &c.

RATIO, REASON!
Suilace-ratio, self-destroying.
Supe-ratio, command, authority, superiority,

conquest, &c.
Susur-ratio, low-speaking, whispering, &c.
Vitupe-ratio, abusing, calumniating, &c.
Vo-ratio, eating, devouring.

Obtempe-ratio, obedience, submission, &c. O-ratio, speech, eloquence, &c.

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